

133

# **SOCIO-ECONOMIC STUDY AS A BASIS OF REHABILITATION PROGRAMME FOR INFORMAL SECTOR WORKERS IN UTTAR PRADESH AND ORISSA**

Sponsored by

**MINISTRY OF LABOUR  
PLANNING UNIT  
GOVERNMENT OF INDIA  
NEW DELHI**

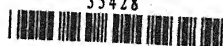
**R.S. TIWARI**

**GIRI INSTITUTE OF DEVELOPMENT  
STUDIES  
SECTOR O, ALIGANJ HOUSING SCHEME  
LUCKNOW 226 024**

2001

GIDS Library

35428



1331 TIW

I  
331  
TIW

I  
331  
RSTW  
Labour Economics

35428

## PREFACE

Generally, it has been realized that natural growth of urban population and the influx of population arising out of rural to urban areas have generally deepened the problems of unemployment, under-employment and the disguised employment in most of Indian metropolitan centres and medium and small cities. Thus, the prospect of absorbing urban population into productive occupations and providing them minimum social and other urban amenities appears very limited, given the current trends of employment growth in the organized formal sector on the one hand and expenditure, investment and management capabilities of the civic authorities on the other. It seems that urban development strategy based on the organized sector development from the view point of productive employment generation is non-viable, and, therefore, urban development strategy based on the growth of unorganized informal sector may tend to be more viable, quick result orienting and equitable.

It may be mentioned that informal or unorganized sector consists of registered and unregistered components. While considerable attention has been paid to study the registered part of informal sector, the studies dealing with unregistered component of informal sector are, however, found to be inadequate in literature on urban development. The present empirical study attempts to fill this gap by using secondary and primary sources of information. Based on a sample of 500 workers from each cities of Agra, Kanpur and Puri, the present study (1) discusses the definitional aspect and methodology used and makes a modest attempt at examining the; (2) the contribution of unregistered informal segment in terms of employment and income generation; (3) social characteristics of unregistered informal sector; and (4) general characteristics of unregistered informal sector workers including migration pattern, level of living and consumption pattern. The discussion on appropriate rehabilitation programme aiming at the socio-economic upliftment of unregistered informal sector workers also forms an important part of the present study. Besides these, the study also describes the appropriate policy measures so as to improve the socio-economic conditions of workers engaged in unregistered segment of informal sector in selected cities.

The present study received invaluable help and cooperation from many intellectuals from its inception to its present form. Prof. G.P. Mishra, Director, Giri Institute of Development



Studies, Lucknow, extended guidance, encouragement and administrative support at various stages to carry out the present study. I feel extremely thankful to him.

I received constructive and invaluable help, support and cooperation from the research team consisting of Shri Sandeep Srivastava, Miss Anamika, Shri Ram Shankar Sharma, Mrs. Huma Rizvi, Miss Ritu Goel, Shri Govind Sharma, Ms. Preeti Saxena, Shri Satish Khare, Shri Surendra Saxena, Shri A.K. Srivastava, Shri Jaganath Rao, Shri Dharmendra Mohanty, Shri K. Narayan and Shri J.S. Mahanoma, who worked in Agra, Kanpur and Puri cities. All of them helped whole-heartedly at different stages of the present study. Various workers engaged in unregistered informal sector in Agra, Kanpur and Puri cities gave unhesistantly full cooperation to our research team in collecting the information required for the study. I thank all these individuals for their help and cooperation.

I will be failing in my duty if I do not express my sincere thanks to the Library, Secretarial and Administrative Staff of the Giri Institute of Development Studies, Lucknow who rendered invaluable support required for the study. Specifically, I feel thankful to Mr. Manoharan, K. for secretarial assistance timely and efficiently.

Finally, I owe my indebtedness to the Government of India, Ministry of Labour, Shram Shakti Bhawan, New Delhi, for extending the generous financial support for carrying out the present study. Specially I feel thankful to Shri V. Parameswaran, Joint Secretary, Dr. (Mrs.) Kiran Chadha, Director, and Shri Vinod Kumar, Assistant Director, Ministry of Labour, Planning Unit, Shram Shakti Bhawan, New Delhi for their kind administrative cooperation at various stages of the present study.

Needless to mention, the present research study is an outcome of goodwill, support and suggestions I received from all these sources. I am, however, alone responsible for all the errors and omissions remained in the present study.

**R.S. TIWARI**

December 20, 2001

Giri Institute of Development Studies  
Lucknow 226 024

## CONTENTS

	PREFACE	i-ii
CHAPTER I	INTRODUCTION : DEFINITION AND SAMPLE DESIGN	1-25
CHAPTER II	EMPLOYMENT AND INCOME GENERATION	26-48
CHAPTER III	SOCIAL CHARACTERISTICS OF UNREGISTERED INFORMAL SECTOR WORKERS	49-120
CHAPTER IV	WORKING CONDITIONS AND HOUSING CHARACTERISTICS	121-142
CHAPTER V	MIGRATION PATTERN, POVERTY PROFILE AND CONSUMPTION PATTERN	143-174
CHAPTER VI	REHABILITATION PROGRAMME FOR UNREGI- STERED INFORMAL SECTOR WORKERS	175-214
CHAPTER VII	GENERAL SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS	215-231
	BIBLIOGRAPHY	232-239

## **CHAPTER I**

### **INTRODUCTION : DEFINITION AND SAMPLE DESIGN**

It has increasingly been realized that natural growth of urban population and the influx of population from rural to urban areas has generally perpetuated unemployment, under-employment and disguised employment in most of Indian metropolitan centres and medium and small cities. Thus, the prospect of absorbing urban population into productive occupations and providing them minimum social and other urban amenities appears very slight, given the current trends of employment growth in the organized sector on the one hand and expenditure, investment and management capabilities of the civic authorities on the other. It is apparent that urban development strategy based on organized sector is not viable on account of its limited capacity to create employment and to generate income and, therefore, 'a strategy of development emphasizing the growth of smaller, unorganized and informal organizations may tend to be more quick yielding and equitable.'<sup>1</sup>

#### **I. Structure of the City Economy**

Economic structure of the city in the industrial world can be described as a distinct mode of production, with the capital-intensive high-wage sector with its full integration into the internal economy dominating the urban economy. But in developing countries, the dualistic nature of economy has persisted. In India, almost all metropolitan and large cities can be seen with two juxtaposed systems or organizations of production of goods and services. While one is derived from the form of production using capital on a consistently large scale,

---

<sup>1</sup> Papola, T.S., Urban Informal Sector in a Developing Economy, Vikas Publishing House, 1981, p.1.

modern technology and know-how and engages highly skilled and trained workers and produces sophisticated goods and services for the higher income groups, the other system is derived from the traditional mode of production. These two systems are described in a variety of ways by different writers and researchers, each emphasizing particular aspect, which they have chosen to highlight. The classifications used to portray the functioning of these two sectors in the urban economy are termed as organized and unorganized, modern and traditional, capital and subsistence, protected and unprotected, large and small, regular and casual and formal and informal.

The most commonly used classification is the organized vis-à-vis the unorganized sector. It is distinguished on the basis of the nature of producers, product markets, technology and the influence exerted by the government. Organized sector primarily consists of large scale manufacturing firms whose products and services are sold in an oligopolistic market, sheltered from foreign competition by the high tariffs and quantitative restrictions. Consumers of this sector products come mainly from the middle and upper income classes. Unorganized sector, on the contrary, consists of a large number of producers, who generally sell their products and services in a high competitive market and the consumers of products mainly belong to low income group.<sup>2</sup> Organized sector firms use capital and imported technology intensively, whereas, unorganized firms use labour-intensive technology and as a result, labour productivity is much lower in the later than the former. Further, the nature of technology in the formal sector is such that requires routine and formalized work conditions, whereas, informalised work condition prevails in the unorganized sector. The producers of the organized sector are protected by the government, while such protection is not available to the same

---

<sup>2</sup> Joshi, Heather and Joshi, Vijay, Surplus Land and City : A Study of Bombay, Bombay, 1976.

extent to the unorganized sector producers.<sup>3</sup> For example, organized sector producers can avail the financial facility and raw materials from different institutions, whereas, such facilities are not generally available to the unorganized sector producers. The above pertains to the variables, such as, size, degree of competition in the product and labour market and the nature of technology. Since these variables are not necessarily the distinguishing parameters of the two sectors, therefore, organized-unorganized dichotomy has little or no significance. Derived from this, it could also be termed as 'large-small', 'modern-traditional', 'capital intensive-labour intensive activities'<sup>4</sup> instead of organized-unorganized sectors. Nevertheless, this classification makes a distinction between the workers and the labour market, but the distinction between organized and unorganized sector is rather blurred.<sup>5</sup>

Sometimes, the terms 'capitalist' and 'subsistence' were used to portray the structure of urban economic activities. However, these terms could not gain popularity primarily on two grounds. First, production organizations existing in developing economies are not wholly classifiable either as 'capitalist' or as 'wage earners.' Second, Marxist scholars have not found much interest in the theme of the structure of urban economies and non-Marxist scholars 'have mostly shown abhorrence to the use of concepts like classes or mode of production.'<sup>6</sup> Generally, the use of notations like 'upper' and the 'lower circuits' or 'firm centres' or 'bazar type economy',<sup>7</sup> is preferred instead of capitalist or subsistence.

The terms 'modern' and 'traditional' have also been used to represent the economic structure of urban economy. It refers to the 'technological characteristics' than the organization of production. It is, however, pointed out that 'modern', 'traditional' dichotomy lacks its precise

---

<sup>3</sup> *Ibid.*

<sup>4</sup> *Op.cit.*, 1, p.5.

<sup>5</sup> *Ibid.*, p.6.

<sup>6</sup> *Ibid.*, p.6.

<sup>7</sup> Geertz, C., *Peddler and Princes, Social Change and Economic Modernization in Two Indonesian Towns*, Chicago and London, Chicago University Press, 1963.



meaning and it is rather assumed that 'audience knows what is meant.'<sup>8</sup> In developing economy, the 'modern sector' refers to the 'enumerated' labour force, whereas, 'traditional sector' 'unenumerated' or residual labour force.<sup>9</sup> It implies that 'modern sector' is 'inherently dynamic', whereas, 'traditional sector' non-dynamic. Scholars have seriously objected to the use of the term 'traditional' as a term of disparagement and ... felt that ... it is the product of an alien culture that sees 'tradition' as detrimental to development rather than an integral part of nation's culture and identity.<sup>10</sup>

## II. Informal Sector : The Conceptual Framework

Some scholars preferred to use the formal-informal dichotomy. The term 'informal sector' was first used in the 'socio-anthropological studies' during 1950s especially in ethnic group studies. Since then, the term was used by numerous sociologists and economists.<sup>11</sup> For instance, Lewis (1954)<sup>12</sup> used informal sector for the model characterized by sectoral dualism, followed by Fei and Ranis (1964).<sup>13</sup> Hart (1971)<sup>14</sup> used the informal sector concept in a case study of urban Ghana. He identified numerous urban activities as a means to provide income and employment to the urban workforce. These workers who primarily migrated from rural hinterland to urban areas, owing to the lack of job opportunities in the formal sector due to lack of skills and work experience, worked primarily as 'self-employed' in the urban informal sector.

<sup>8</sup> *Ibid.*, 1, p.7.

<sup>9</sup> Weeks, John, "Policies for Expanding Employment in the Informal Urban Sector of Developing Economies", *International Economic Review*, January, 1975, p.2.

<sup>10</sup> Emmerji, Louis, "A New Look at Some Strategies for Increasing Productive Employment in Africa", *International Economic Review*, September 1974.

<sup>11</sup> Mingione, Enzo, "The Informal Sector and the Development of Third World Cities", *Regional Development Dialogue*, Vol.5, No.2, Autumn, 1984, p.63.

<sup>12</sup> Lewis, W.A., "Economic Development with Unlimited Supplies of Labour", *Manchester School of Economic and Social Studies*, Vol.XII, No.2, 1954.

<sup>13</sup> Fei, J.C.H. and Ranis, G., "Development of Labour Surplus Economy - Theory and Policy", Homewood III, Richard Erwin, Homewood, Illinois, 1964.

<sup>14</sup> Hart, Keith, "Informal Income Opportunities and Urban Employment in Ghana", *Journal of Modern African Studies*, March 1973, pp.61-89.

Since then many studies used the informal sector concept. ILO country missions<sup>15</sup> in Kenya, Columbia, Sri Lanka and Philippines primarily underlined the development strategy based on economic growth in which employment was considered as the prime objective for development.<sup>16</sup> The ILO reports laid down eight important characteristics of informal sector, e.g. (1) ease of entry, (2) reliance on indigenous resources, (3) family ownership of enterprise, (4) small-scale operation and low productivity, (5) labour-intensive and adopted technology, (6) skills acquired outside the formal school system, (7) unregulated and competitive market, and (8) lack of support and recognition from the government. The formal sector was said to have the obverse of the above characteristics. The ILO reports stressed on enterprise rather than individuals as a basis for the formal-informal classification. This was considered as one step further in clarifying the confusion of the classification, but still the basis of classification between formal and informal sector was, by and large, reported to be vague.<sup>17</sup> Also, ILO report at some points included mainly the 'squatter area enterprises' in the informal sector whereas the other 'report appears to include all enterprises not recognized by the government in it.'<sup>18</sup> Over time, some of the characteristics of the informal sector were seriously questioned. It was stressed that in many organizations, 'new entry is highly differentiated. What seems to characterize these occupations designated as the informal sector is, therefore, not so much lack of informal structure, but a diversity and complexity of structure.'<sup>19</sup> Bremen strongly feels that

<sup>15</sup> ILO, *Employment, Income and Equality: A Study for Increasing Productive Employment in Kenya*, Geneva, 1972.

<sup>16</sup> Mehta, Meera, "Urban Informal Sector, Concepts, Indian Evidence and Policy Implications", *Economic and Political Weekly*, Vol. XX, No. 8, February 23, 1985, pp. 236-332.

<sup>17</sup> Sethuraman, S.V., "The Urban Informal Sector: Concepts, Measurements and Policy", *The International Economic Review*, July-August 1976, p. 72; *Op.cit.* 1, p. 9; Kashyap, S.P. and Singh, Himal, "Urban Informal Sector, Issues Arising out of Gujarat's Experiences", *Indian Journal of Industrial Relations*, Vol. 23, No. 1, July 1987, pp. 43-53.

<sup>18</sup> *Ibid.*, 1, p. 9.

<sup>19</sup> Peattie, L.R., "Anthropological Perspectives on the Concepts of Dualism, the Informal Sector and Marginality in Developing Urban Economies", *International Regional Science Review*, Vol. 5, No. 1, 1980, pp. 1-29.

'the network of contacts determines not only whether one is incorporated in to the work process but also, were how long and for what type of work.'<sup>20</sup>

### III. Indian Experience

In Indian studies, some of these criteria<sup>21</sup> have also been used to delineate informal from the formal sector. Some studies used employment size ranging from 5<sup>22</sup> to 25<sup>23</sup> as a basis of classification, which was invariably influenced by the labour market conditions. Once an enterprise is registered under the Factory's Act, the procedure of recruitment, work conditions, hours of work, leave and payment of wages are formalized it becomes a part of formal sector. "Thus, the formal sector workers have the protected labour market, while those informal are exposed to uncertainty and whims of the employers."<sup>24</sup> At a time, however, it was found that even in the formal sector firms, a sizeable number of workers were recruited informally on a casual, irregular and contract basis. Deepak Majumdar<sup>25</sup> observed that a number of irregular workers worked with permanent workers in Bombay Textile Industry.

The second criterion often used was the self-employed nature of work.<sup>26</sup> All independent workers, production units and establishments, employing less than 10 workers were considered to constitute informal sector.<sup>27</sup> This criterion was questioned by Bremen, who

<sup>20</sup> Bremen, Jan, "Labour Relations in the 'formal' and 'informal' Sectors : Report of a Case Study in Sough Gujarat, India", *Journal of Peasant Studies*, Vol.4, Nos.3&4, 1977.

<sup>21</sup> *Op.cit.*, 1; *Op.cit.*, 2; Bose, A.N., "The Informal Sector in Calcutta Metropolitan Economy", ILO, Geneva, 1974; Lubell H., "Urban Development and Employment : The Prospects for Calcutta", ILO, Geneva, 1974; Deshpande, L.K., "The Bombay Labour Market", University of Bombay, 1979 (Mimeo.); Operational Research Group, "An Economic Profile of Urban Poor-Shum Dwellers of Madras", 1980 (Mimeo.); Harris, J.R., "Urban Labour Poverty and the so-called Informal Sector : A Study of the City of Coimbatore", (In Madras Development Seminar Series), Vol.10, No.10, 1981; Majumdar, A., "Immigration and Informal Sector", BISR, Delhi, 1980.

<sup>22</sup> Bose, A.N., *Ibid.*

<sup>23</sup> *Op.cit.*, 2.

<sup>24</sup> *Op.cit.*, 1, p.11.

<sup>25</sup> Majumdar, D., "The Urban Informal Sector", World Bank Staff Working Paper No.211, Washington, 1975; Majumdar, D., "Labour Supply in Early Industrialization, The study of Bombay Textile Industry", *Economic History Review*, August 1973.

<sup>26</sup> *Op.cit.*, 1.

<sup>27</sup> *Op.cit.*, 1, p.7.

felt that one man firm or owner of a small workshop should not be included along with the so-called self-employed like street barber, shoe shiner and garbage collector.<sup>28</sup> The third criterion was the casual status of workers. It was defined as 'one man's firms in the sense of small entrepreneurs.'<sup>29</sup> Thus, regular workers were classified into formal sector, whereas, casual workers in the informal sector. Deshpande, however, raised serious objection on account of per worker productivity. According to him, "workers in casual employment work with the same amount of capital (elasticity of demand), produce the same goods, and be employed in establishment of the same size (scale of operation) and yet not receive the same wage (or earnings) as the regular workers do."<sup>30</sup>

#### IV. Components of Informal Sector

The modern city dweller increasingly depends on those engaged in informal sector activities like domestic servants, dhobi and launderer, gardner, hawkers dealing in variety of goods such as vegetables, bread and butter, eggs, repairing of scooter, car, cycle, shoes and electrical appliances, etc. Apart from these, there are persons engaged in some productive activities/crafts, either engaging family members or one or two hired workers. There are casual or unattached workers who are making a living in any way, who do not have a high degree of employment stability or security of income. Such ways of making a living are considered as 'income opportunities' and include both working for others and self-employment, both legal and illegal, productive and unproductive activities. An overwhelming majority of casual workers are engaged in small industries, artisanal production, petty commerce, personal and domestic services, construction, fisheries and transport activities.

---

<sup>28</sup> Op.cit., 20.

<sup>29</sup> Op.cit., 15.

<sup>30</sup> Deshpande, L.K., Op.cit., 21.

These are described as short-term wage workers, disguised wage workers, dependent workers and true-self-employed.

## **V. Poor and Inadequate Data on Informal Sector**

In spite of the large magnitude of the informal sector activities and the high proportion of work force engaged in these in the city, adequate and reliable information is not at all available on important aspects, such as, how this sector functions and what is its employment and income potential. The studies completed so far are not comprehensive in their coverage of all aspects relevant to the functioning of the informal sector, especially the planning and development of this sector, particularly in the large, metropolitan, medium and small cities with a view to enable this sector to increase the employment opportunities for the urban employed and under-employed and also to offer scope for self-employment.

## **VI. Issues of the Informal Sector**

As stated earlier, in view of the sizeable employment opportunities in the informal sector and its capacity to provide a wide variety of goods and services and also to provide employment and income for the urban poor, the unskilled and semi-skilled urban workers, this sector has to be studied in greater detail. Further, the most important factor to be reckoned in undertaking such a study is that very little has come to be known about the various aspects of the functioning of the informal sector and locale of this sector from the view point of total environment of the areas of the cities in which this sector is operating. Data for such a particular study can be collected only by an empirical study designed specifically for this purpose. Such a study will enable proper analysis of potential of the informal sector as an instrument of growth, besides being useful in evolving an appropriate rehabilitation policy for



informal sector workers. Further, the results of such a study can be utilized for other urban centres where some of the on-going schemes are operating for rehabilitation for the workers of informal sector.

Workers engaged in informal sector offers an ample scope for research, which is a component of unorganized informal sector. However, information on various aspects is not yet known. For instance, what are the major activities that are being carried out by informal sector workers? What is socio-economic environment that such workers are facing? What would be the appropriate rehabilitation programme for informal sector workers? And what kinds of policy measures are required for their socio-economic development? These aspects, though important they are, have not been examined comprehensively as yet. Considering the significance of these aspects, the present study makes a modest attempt to understand the various aspects of socio-economic environment affecting the growth and the potential of informal sector workers.

## **VII. Objectives of the Study**

In the light of above, the present study examines the following objectives specifically:

- (1) To estimate the contribution of informal sector workers in terms of employment and income;
- (2) To examine the activities carried out by informal sector workers;
- (3) To examine the social characteristics of informal sector workers;
- (4) To empirically examine the general characteristics of informal sector workers, i.e. pattern of migration, levels of living, and their consumption pattern;
- (5) To suggest appropriate rehabilitation schemes for the informal sector workers; and,
- (6) Policy recommendations for improving the overall socio-economic conditions of informal sector workers.

## VIII. Background of Cities

### VIII.1 Agra

We may now discuss briefly the background of selected cities. First, we take up Agra. Myth has prevailed about the origin of Agra. Historically, Agra was derived from *agravana*, one of the twelfth groves of *Brajamandala*. Traditionally, it is believed that Lord Krishna during his childhood sported with his companions at this place. The name agar mean "satpan" in Hindi, implying that the nature of the soil was blackish and indicating that at some period salt might have been produced in these parts.<sup>31</sup> It is also believed that *Agravana* has been originated from 'Arya Griha', which was the abode of the Aryans situated at the green belt of Yamuna and Ganga. 'Arya' 'Griha' were abbreviated, which later on became Agra.

The district Agra lies between 26°44' and 27°24' N Latitude and 77°28' and 78°54' E Longitude. On the West of the district is the Rajasthan, which along with Madhya Pradesh also forms Southern boundary. On the North of the district Mathura and Etah, while East of it is bounded by Mainpuri and Etawah. The length of the district from West-North-West to East-South-East is 78 miles and from North-East to South-West 75 miles. The average breadth from North to South is approximately 76 miles.<sup>32</sup>

The foundation of the city is not yet known and, therefore, is a subject of debate and discussion. According to one traditional belief, the city of Agra was founded by the ancient King, Yamaraja, who as per Hindu Mythology is the lord of death. He is considered as a brother of Yumana, personified as a river on the bank of which the Agra city is situated.

<sup>31</sup> Joshi, Esha Basanti, Uttar Pradesh Gazetteers., Agra, Government of Uttar Pradesh, Department of District Gazetteers., U.P., Lucknow, 1965, p.1.

<sup>32</sup> Op.cit., 31, p.1.

According to another traditional belief, the founder of this city was Raja Agrasena, who also made it his capital. It is held that "Raja Agrasena of the solar race (who is said to have been the progenitor of the Agrawals) founded this city and made it his capital. In this *Tarikh-I-Daudi*, the chronicler Abdullah associates Agra with Kansa, the tyrant who was overthrown by his sister's son, Krishna, an incarnation of Vishnu. Agra was a stronghold in the days of Raja Kans, who ruled at Mathura, who confined everyone that displeased him in the fort at the former place, so that in course of time it became the established state of prison."<sup>33</sup>

It is also held that "this large prison-house might have had numerous heavy bars (*argalas*) for holding fast its massive gates, which might have led to the city being called *Argalapura*. A structure in the *Gokulpura* locality of the city is still known as *Kansdarwaza* (Kansa's Gate). The old fort of Badalgarh, which once stood on or near the site of Akbar's fort, is also said to have belonged to the age of the *Mahabharata* war."<sup>34</sup>

Agra had not been the very important place during the time of early Sultans of Delhi. Sikandar Lodi (1489-1517) of Afghan dynasty. He built up a fort and laid out a city, which was the capital of his kingdom. Babar, descendant of the Central Asian Conqueror Timur, captured the city in 1526. During 1539 and 1540, Shershah, the rebel of Afghan defeated Humayun, son of Babar in two decisive battles and consequently captured the Delhi-Agra region. This was the period, when Grand Trunk road through Agra was laid down. Akbar, the son of Humayun between 1556 and 1605 reestablished Mughal empire. During his tenure, the great fort of Agra and new capital Fatehpur Sikri were built. Akbar died in 1605 and buried at Sikandra 8 kms. North of Agra.

---

<sup>33</sup> *Ibid.*, p.22.

<sup>34</sup> *Ibid.*, p.22.

After the death of Akbar, his son Jahangir on October 24, 1605 was crowned in Agra. During the period of Jahangir, Agra reached at the commanding height as Jahangir himself describes "Agra is one of the grand old cities of Hindustan. It had formerly an old fort on the bank of Yamuna, but this my father threw down before my birth, and he founded a fort of cut red stone the like of which those who have travelled over the world cannot point out. It was completed in the space of fifteen or sixteen years. It had four gates and two sally-points and its cost was 33 lakhs of rupees equal to 15,000 Tomans of current Persian coinage and to 1,05,00,500 Khani according to the Turan reckoning."<sup>35</sup>

Besides fort, during the reign of Jahangir, many magnificent buildings were also built in Agra. "Akbar's tomb at Sikandara was remodelled and expanded; Jahangir Mahal was built in Agra fort; other buildings such as the Hauz-I-Jahangiri, the mosque of Matamad Khan (Jahangir's treasurer) and the beautiful tomb of Itimad-ud-daula (Nur Jahan's father) were also built. The black marble throne which had been made by Jahangir in 1011 AH (1603 AD) as is evident from the Persian inscription on it, was brought here from Allahabad."<sup>36</sup>

On October 27, 1627, Jahangir died and on February 6, 1628 Khurram ascended the throne at Agra, who assumed the title of Shahjahan. The Queen of Shahjahan, Mumtaz Mahal died at the early age of thirty-three in 1633. To keep the memory of his queen alive forever, Shahjahan built up the Taj Mahal. As of today, the history of Agra is primarily remembered on account of the architectural beauty of the Taj Mahal. In 1657, Shahjahan was seriously ill, which consequently resulted his son Aurangzeeb to start war for succession. Aurangzeeb was crowned in Agra in June 1658. Aurangzeeb lived 20 years either in Agra or in Delhi. Aurangzeeb interned Shahjahan in the fort of Agra, where he died in captivity on February 1,

---

<sup>35</sup> *Op.cit.*, 31, p.51.

<sup>36</sup> *Op.cit.*, 31, p.52.

1666. Still, Taj Mahal speaks the immortal love of Shahjahan and his beloved queen Mumtaz Mahal.

Shahjahan assigned the task of building to a Persian master builder, Ustad Isa Khan Effendi, who handed over this work to his pupil Ustad Ahmad. It took 17 years to complete with the help of labour force of 20,000. The cost of Taj Mahal has been estimated today is over 700 million rupees. Besides Taj Mahal, the worth visiting important places in Agra include : (i) Amar Singh Gate; (ii) Akbari Mahal; (iii) Jahangiri Mahal; (iv) Shahjahani Mahal; (v) Khas Mahal; (vi) Sheesh Mahal; (vii) Anguri Bagh; (viii) Musamman Burj; (ix) Nagina Masjid; (x) Diwan-I-Khas; (xi) Diwan-I-Am; (xii) Itmad-Ud-Daulat's Tomb; (xiii) Chini-ka-Rauza (China Tomb); (xiv) Rambagh; (xv) Jama Masjid; etc.

The history of Agra untill half of 18<sup>th</sup> century was flooded with wars and invasions within the Mughal empires, Marathas, Jats and English rulers. After the death of Shahjahan, the reign of Aurangzeeb was quite unpopular. After his death, the empire was disintegrated. In 1711, Agra fell in Jats of Bharatpur. In 1770, it was taken over by Marathas and Agra passed through from one raider to another untill 1803 when fort was ruled by Lord Lake under the British rule.

During 1857, Agra joined in the struggle of national freedom. Most of influential people of the district made freedom of nation as a common cause. Agra was also the head quarter of Hindustan Socialist Republican Association, in which the names of Bhagat Singh, Chandra Shekhar Azad, Jatindra Nath Dass, Sukhdeo, Batukeshvar Dutt and others were associated. For about a year 1928 and 1929, the party headquarter was located at Noore Darwaja. In 1942, Agra reacted enthusiastically to the 'Quit India Movement' organized widely at the national level. Crowd gathered on August 10, 1942, which resulted the wide spread arrest and killing.



On August 22, 1942, the government clothing factory was gutted as a result, 25 people were killed and 100 were injured. Between October and December, the movement for national freedom was kept underground, although, in which for about 1000 people were arrested, 155 detained and a collective fine of Rs.68,195 was realized through the people.<sup>37</sup> Thus, Agra had been the forefront of the freedom struggle. In 1935, Agra and Oudh were combined, which were also known as United Province. After Independence in 1947, the United Province remained in Uttar Pradesh and Agra became the head quarter of Agra district.<sup>38</sup>

The population of the Agra as per 1991 census has been recorded to 11.11 lakhs, accounting for 54.60 per cent of male and to 45.40 per cent of female. Of the total urban population, 73.80 per cent are Hindu, 21.44 per cent Muslim, 0.53 per cent Christian, 0.81 per cent Sikh and to 3.42 per cent are Budh, Jain, etc. A majority of people (93.66 per cent) uses Hindi and to 5.64 per cent Urdu as a medium of communication. Other languages like Punjabi and Bengali are being used only by 0.32 and 0.05 percentage of population.<sup>39</sup> Also, there exists one Municipal Corporation, 1 Census Town, 25 Police Stations and 98 Post Offices.<sup>40</sup> In the city, the literacy rate comes to 48.6 per cent<sup>41</sup> being 63.1 per cent for male and to 30.8 per cent for female. The size of household comes to 6 for the city.<sup>42</sup>

The main workers to total population in 1991 come to 27.4 per cent. Of the main workers, (i) 36.2 per cent are found as cultivators; (ii) 11.2 per cent as agricultural labour; (iii) 14.0 per cent as non-household industrial workers; (iv) 11.7 per cent were those engaged in trade and commerce; (v) 3.9 per cent in household industry; and (vi) to 3.8 per cent in

---

<sup>37</sup> *Op.cit.*, 31.

<sup>38</sup> *Ibid.*

<sup>39</sup> *Statistical Bulletin*, Department of Economics and Statistics, State Planning Institute, U.P., Lucknow, 1999.

<sup>40</sup> *Ibid.*

<sup>41</sup> *Ibid.*

<sup>42</sup> *Ibid.*

transport and telecommunication. Over 16 per cent of main workers are classified as other workers. However, workers engaged in animal husbandry, forestry and mining jointly come to less than 1 per cent.<sup>43</sup> It tends to suggest that Agra is primarily dominated by household and non-household industrial workers engaged in leather works and stone making. Thus, Agra for which it was traditionally known is still seen maintaining its position even today.

## VIII.2 Kanpur

The antiquity of Kanhpur is shrouded from the ancient period of Mahabharata. The name Kanhapur, the ancient name of Kanpur is a manifestation of its close relation with Lord Krishna. The second name Karnapur is also believed to be concerned at the same period of Lord Krishna. Just after creating the universe, it is believed that "Lord Brahma performed the Ashvamedhu Yagna (Horse Sacrifice) at Bithoor, a place situated 13 miles upstream and established a Shivalingam there which made it a place of Pilgrimage to this day. Jajmau was the seat of the famous King Jayati and Devyani. The Sidhnath and Sidha Devi temples of Jajmau belong to the Buddhist period. At Bithargaon village of the district, temples and coins belonging to Gupta period have been excavated. During this period, Kanpur was part of the Kingdom of Kannauj."<sup>44</sup>

It is also believed that "in 1207 AD, Kanh Deo, Raja Prayag, who was attached to the 'Gaddi' of Kannauj suggested the idea of popularizing a village at the origin site of old Kanpur then called Kohna – this village was called Kanpur and continued its association with Kannauj during the reigns of Harsha Vardhan, Bhoj, Mihir, Jai Chand and early Muslim rulers. After the Tughlaks, it came under the Jaunpur rulers and then the Sur dynasty. Abbas Khan Sarwari, a

---

<sup>43</sup> *Ibid.*

<sup>44</sup> TTK Pharma Ltd., A Road Guide to Kanpur, Printing Division, Chennai, pp.1-2.

contemporary of Sher Shah is, however, the first chronicler who makes a casual mention of Kanpur in 1579.<sup>45</sup>

In 1765 Shuja-Ud-Daula, the Nawab Vazir of Oudh was defeated by the British Empire near Jajmau. Under the assigned protocol, Sauja-Ud-Daula retained the major portions of his dominion but Kora and Allahabad districts were handed over to Shah Alam, who later on handed them over to Marathas in 1771. Shuja-Ud-Daula in 1773 ejected the Marathas and till 1801 it continued the part of Oudh Domain. As Nawab of Oudh failed to pay the allowances, the certain parts of territories were captured by East India Company and in 1801 Kanpur was under the control of British Empire. In due course, Kanpur became the most important military station of the country under the British rule.<sup>46</sup>

Kanpur was declared a district in 1803, which was covered by Kora Jahanabad, Farrukhabad and Kalpi. The city comprised of old Kanpur, Patkapur, Kurswan, Juhi and Sisamau villages.<sup>47</sup> In 1810, the courts were shifted to Bithoor but were reshifted to Kanpur in 1819 in Nawabganj. The jail, the treasury and official bungalows were located there. The magazine Armory and European Hospitals were located in West. Customs office was at parmat. South of Parmat were the English Infantry Lines and Parade Ground. The Indian infantry covered the space from present Chunniganj to the Christ Church College. The Cavalry Lines were situated on the Ganga river. The Company Bagh was founded in 1847 and the construction of Ganga Canal was started in 1854. The scattered and different villages, which had a population of only a few thousand was now a complete city called 'Cawnpore' by the British.<sup>48</sup>

---

<sup>45</sup> *Op.cit.*

<sup>46</sup> *Ibid.*, 44.

<sup>47</sup> *Ibid.*

<sup>48</sup> *Ibid.*

Kanpur is situated in the middle of Ganga Valley, on the Southern bank of the Ganga river. It is located on 26°40' N Latitude and 80°20' E Longitude. The covered up area of the city is 1040 sq.km. and lies at an altitude of 126 m. above the sea level. The area covered under the Municipal Corporation is 672.56 sq.km. Kanpur has its older closely-built core about a kilometre away from the River Ganga. Between this lies the industrial zone on the West and the administrative zone on the East of the Kanpur city.<sup>49</sup>

Population of the Kanpur urban as per 1991 census comes to 20.37 lakhs.<sup>50</sup> It accounted for 54.89 per cent of male, while rest (45 per cent) by female population. The population of SC/ST is of the order of 13.6 per cent of the total urban population. Of the total urban population, 68.7 per cent are found to be educated constituting 76.7 per cent of male and that of 58.8 per cent of female. The average size of household comes to 5.81 per cent in Kanpur urban. Over 89 per cent of population uses Hindi in their day-to-day life. The persons speaking Urdu, Punjabi, Bengali and other languages are recorded to be 8.78 per cent, 0.80 per cent, 0.30 per cent and to 0.40 per cent respectively.<sup>51</sup>

In the urban Kanpur, there are 1524 Junior Basic Schools, 368 Senior Basic Schools, 285 Higher Secondary Schools, 21 Degree Colleges, 1 University, 2 Industrial Training Institutes and one Polytechnic, 96 Allopathic Hospitals, 29 Ayurvedic Hospitals, 27 Homeopathic Hospitals, 4 Unani Hospitals, 11 Primary Health Centres, 17 Family and Mother Child Welfare Sub-Centres, 38 Cinema Houses, 1 Municipal Corporation, 1 Contonment area, 1 Census town, 32 Police Stations, 41 Bus stations/Bus Stops, 122 Post Offices, 13 Telegraph/Telegram Offices, 264 Nationalized Bank Branches and to 16 Cooperative Bank Branches.<sup>52</sup>

---

<sup>49</sup> *Ibid.*

<sup>50</sup> Department of Economics and Statistics, State Planning Institute, U.P., Lucknow, *Statistical Bulletin, Kanpur Urban*, 1997.

<sup>51</sup> *Ibid.*

<sup>52</sup> *Ibid.*

Of the population, 25.8 per cent are found as main workers. Of the main workers, 18.4 per cent are found as cultivators, 6.1 per cent as agricultural labour, 23.6 per cent non-household industrial workers, 1.8 per cent construction workers, 22.9 per cent are those engaged in trade and commerce and to 7.3 per cent in transport, warehousing and telecommunication. Over 27 per cent of main workers are found engaged in other activities. In the city, there are 1613 industrial enterprises registered under the 1948 Indian Factories Act and to 18,128 small industrial units with total workers of 45,784.<sup>53</sup> It seems to suggest that Kanpur is dominated primarily by non-household workers employed in various economic activities like leather, engineering and small scale textile enterprises.

### VIII.3 Puri

The history does not reveal the origin of Puri city. Several views were held by various historians. The ancient name of the Puri, according to Cunningham was 'Charitra' as mentioned by the Chinese pilgrim Hiven Tsang as *che-li-ta-lo*. "The importance of the town as a seat of Vaisnavism increased when Choda Ganga Deva constructed the temple of Purusottam Jagannath and installed the images of the deities. Thereafter, it became famous as the abode of Purusottam and was popularly called Purusottama Kshetra."<sup>54</sup>

In the drama Anargharaghava Natkam, Purusottama during 9<sup>th</sup> century AD had addressed the Puri town. During 1229-30 AD, the place was known as Purusottama Chhatar, which was also used by Mughal, the Maratha as well as the early British Rulers. In Yogimitantra and Kalikapuram, this city was called as Purusottam Puri, which was also made popular as Utkal.<sup>55</sup> "The name Purusottama Kshetra was also for sometime known as

<sup>53</sup> *Op.cit.*, 50

<sup>54</sup> Department of Revenue, Government of Orissa, *Gazetteer of India, Orissa, Puri*, 1977, p.1.

<sup>55</sup> *Ibid.*



Purusottama Puri and as the word Purusottama Kshetra was contracted into Kshetra or Chhatra so also Purusottama Puri was expressed in the contracted form Puri. In fact, in many early British records this town is known by the name Pooree. In modern times Puri become the most popular of all the other names of this town.<sup>56</sup>

Puri was under the rule of Mughals from 1592 to 1751, which was occupied by Marathas in 1751. In 1803, British captured the Orissa. In 1804, Raja of Khurda revolted against British empire, who was consequently, arrested and kept in confinement in the fort of Barabati at Cuttack. His territory was confiscated and Raja was released. In 1807, the Raja was permitted to live in Puri as superintendent of the Jagannath temple. Puri was made capital of Orissa and headquarter of the Collector till 1816. According to the Regulation I of 1818, Robert Ker became the first Commissioner. W. Wilkinson by 1821, became the first Magistrate and Collector of the Puri. In 1837, the Magisterial power was separated from the power of Collector. Such an arrangement continued till 1912, the year when new provinces of Bihar and Orissa were formed. Orissa became the separate province in 1936.

The district Puri "lies between 29°28' and 20°35 North Latitude and 84°29' and 86°25' East Longitude. The Puri is bounded on the North and North-East by the districts of Dhenkanal and Cuttack, on the West and South-West by the districts of Baudh-Khondmals and Ganjam and on the South and South-East by the bay of Bengal."<sup>57</sup>

Puri, according to 1991 census year, is spread over within 18.84 sq.kms. with the population of 1.25 lakhs. Of the total population, 53.12 per cent are male, while remaining 46.88 per cent are female. Also, 10.51 per cent were found as SC/ST population in the Puri urban. The 76.69 per cent of population in Puri are found educated, constituting 83.27 per

---

<sup>56</sup> *Ibid.*, 54.

<sup>57</sup> *Ibid.*

cent of male and to 69.20 per cent of females. Within the SC, 51.08 per cent of male population while 28.29 per cent of female population were found literates. Of the total SC population, 39.97 per cent are found literates. Among the Scheduled Tribes, 85.52 per cent of male and to 51.28 per cent of female population were found educated. Of the total population of Scheduled Tribes, 73.54 per cent are found literates. Thus, of the total SC/ST population, 83.27 per cent of male, 69.20 per cent of female and to 76.69 per cent of total population have been found literates. It implies that 23.31 per cent of SC/ST population are illiterates in the Puri city.<sup>58</sup>

In Puri city, there are 20,980 residential houses and to 23,062 households. As much as 98.48 per cent of population are found Hindus, 0.88 per cent Muslims and to 0.55 per cent Christians. There are 26 Post Offices, 17 Sub-Post Offices, and to 8 branch Post Offices. Also, there exists 38 Primary Schools with 196 teachers and 12,164 students; 10 Middle Schools with 77 teachers and 2005 students; 13 Secondary Schools with 266 teachers and 8500 students; and 2 Colleges with 36 teachers and to 1078 students. There is only one Medical College; two other hospitals and one Primary Health Centre (PHC); one homeopathic hospital with one doctor, one assistant and 11,458 past treated patients; and to one Ayurvedic hospital, three dispensaries, 8 doctors, 3 nurses, 3 distributors, 80 beds with 56,017 past treated patients.<sup>59</sup>

In and around Puri, various temples are situated, such as (i) Jagnath Temple; (ii) Shri Lokanath Temple; (iii) Baseli Temple; (iv) Harachandi Temple; (v) Gopinath Temple; (vi) Jambeswar Temple; (vii) Bara Lokanath Temple; (viii) Syama Kali Temple; (ix) Astha Sambhu Temple; (x) Dakhina Kali Temple; (xi) Gachha Kali Temple; (xii) Rama Chandi Temple; (xiii)

---

<sup>58</sup> *Op.cit.*, 54.

<sup>59</sup> *Ibid.*

Jaganath Musima Temple; (xiv) Atharanata Temple; (xv) Alma Chandi Temple; (xvi) Shri Gundicha Temple; (xvii) Nrusingha Nath Temple; (xviii) Nilakantheswar Deva and Indradyumna Raja Rani Temple; (xix) Sidha Mahavira Temple; (xx) Daria Mahabira Temple; (xxi) Ugrasena Deva Temple; (xxii) Masani Chandi Temple; (xxiii) Smasaan Kali Temple; (xxiv) Kamaksha Temple; (xxv) Bata Mangala Temple; (xxvi) Sri Ram Temple; (xxvii) Rameshwar Temple; (xxviii) Jhadeswari Temple; (xxix) Satya Mahavir Temple; (xxx) Nilkantheshwar Temple; (xxxi) Boudha Temple; (xxxii) Baleshwar Temple; (xxxiii) Sun Temple; (xxxiv) Sakhigoipal Temple; (xxxv) Kali Temple; (xxxvi) Siruli Mahavir Temple; (xxxvii) Uttarayani Temple; (xxxviii) Mangla Temple; (xxxix) Balihara Chandi Temple; (xl) Ajaranath Temple; (xli) Balikapileshwar Temple; (xlii) Bishwanath Temple; (xliii) Ramachandi Temple; (xliv) Barahi Temple; etc.

In Puri city, of the total main workers, 41.03 per cent of workers are found engaged in other services; 32.60 per cent in trade and commerce; 9.60 per cent in transport, storage and communication; 6.10 per cent in livestock, forestry, fishing, plantation and allied activities; 5.40 per cent in other than household industry; 2.96 per cent in household industry; 2.31 per cent in construction; 1.39 per cent as agricultural labour; 0.67 per cent as cultivators; and to 0.05 per cent of workers are found employed in mining and quarrying. It would imply that Puri city is primarily dominated by other services, which also includes tourism, trade and commerce, transport, storage, communication and fishing and allied activities.<sup>60</sup> Puri being an important religious place is predominantly known for its temples.

## **IX. Methodology and Data Base**

As mentioned earlier the informal sector consists of registered and unregistered components. While considerable studies have been carried out to study the registered

<sup>60</sup> Directorate of Economics, Orissa, Bhubaneshwar, District Statistical Handbook, 1997.

segment of informal sector, the studies dealing various activities under the unregistered segment of informal sector are not, however, adequate. Published information on above aspects is not at all available and, therefore, data on such aspects can be only collected by an empirical study designed specifically for this purpose. Such a study will enable a proper analysis of the informal sector workers and make suggestions for their upliftment. A comprehensive study dealing with the socio-economic conditions of the informal sector workers would suggest the appropriate rehabilitation programme for their socio-economic development.

*A-priori*, we propose to make in-depth study of 500 unregistered informal sector workers each from Agra and Kanpur cities in Uttar Pradesh and another 500 such workers in Puri in the state of Orissa. In all, 1500 workers engaged in unregistered informal segment have been proposed for in-depth field investigation. The selection of Kanpur, Agra and Puri are guided by the concentration of workers under unregistered informal sector segment. While Kanpur offers ample opportunities for workers in unregistered informal manufacturing activities, Agra being small city offers opportunities for repairing and leather based manufacturing informal activities. An other aspect of informal sector activities, which has not been considered seriously, is the fishing activity, which has been carried out nearby the sea or river coast. Puri offers an ample opportunity, where fishermen with or without licence are engaged in fishing activity of unregistered informal sector. Rarely any empirical study is available on this aspect of unregistered informal sector workers engaged in fishing activity.

As for the selection of 500 workers from each city, it has been done by following the stratified random sampling procedure. At the first stage, each city is divided into four parts - East, West, North and South and 500 workers are accordingly distributed. At the second stage, 25 per cent of 500 workers or 125 workers have been distributed each in East, West, North

and South in each city and randomly the informal sector workers are selected. Such a methodology has been followed on account of lack of information base from the published sources.

Based on the methodology per-se, in Agra, five areas each from the East (Belanganj, Baluganj, Rakabganj, Mantala and Tajganj); West (Jagdishpura, Shahganj, Sikandra, Arjun Nagar and Bodla); North (Nai-ki-Mandi, Raja-ki-Kandi, Loha Mandi, Khandari and Sultanganj); and South (Idgah, Namner, Sultanpura, Naulakha and Bundu Katra) have been considered. Similarly in Kanpur, respective areas are : Bansmandi, Gandhi Nagar, Naulakha, Collectorganj and Parade from the East; Kalyanpur, Rawatpur, Panki, Vijay Nagar and Fazalganj from the West; Nawabganj, Ashok Nagar, Gwaltoli, Arya Nagar and Sisamau from the North; and Kidwai Nagar, Baradevi, Barra, Govind Nagar and Naubasta from the South.

Also, in Puri, the respective areas include : Talabania, Siddha Mahabir, Pentha Kata, Chakratirth Road and Station Road from the East; Grand Road, Markandeshwar Sahi, Har Chandi Sahi, Balia Panda and Tala Nau Sahi from the West; Dhan Mandal Sahi, Bala Gundi, Kumbharpara, Nabakaleban Road and Chari Nala from the North; and Ank Polanna, Dola Mandapa Sahi, Mati Mandal Sahi, Bali Nulia Sahi and Gauda Bada Sahi from the South. In the selected areas per-se, a sample of workers have been drawn to examine the objectives set out in the study (Table I.1).

Due care was taken while selecting the workers about the heterogeneity of different economic activities. Such a study has been carried out with the help of structured questionnaire procedure, incorporating various questions regarding the socio-economic environment of informal sector workers.



Table I.1 : Unregistered Informal Sector Workers Selected from Different Areas in Agra, Kanpur and Puri Cities : 1999

Agra		Kanpur		Puri	
Area	Workers Selected (No.)	Area	Workers Selected (No.)	Area	Workers Selected (No.)
<b>A. East</b>		<b>A. East</b>		<b>A. East</b>	
1. Belanganj	25	1. Bansmandi	25	1. Talabania	15
2. Baluganj	25	2. Gandhi Nagar	25	2. Siddha Mahabir	16
3. Rakabganj	25	3. Naulakha	25	3. Pentha Kata	71
4. Mantola	25	4. Collectorganj	25	4. Chakra Tirth Road	14
5. Tajganj	25	5. Parade	25	5. Station Road	16
<b>B. West</b>		<b>B. West</b>		<b>B. West</b>	
1. Jagdishpura	25	1. Kalyanpur	25	1. Grand Road	13
2. Shahganj	25	2. Rawatpur	25	2. Markandeswar Sahi	15
3. Sikandra	25	3. Panki	25	3. Har Chandi Sahi	15
4. Arjun Nagar	25	4. Vijay Nagar	25	4. Balia Panda	15
5. Bodla	25	5. Fazalganj	25	5. Tala Nau Sahi	10
<b>C. North</b>		<b>C. North</b>		<b>C. North</b>	
1. Nai Ki Mandi	25	1. Nawabganj	25	1. Dhanmandal Sahi	15
2. Raja Ki Mandi	25	2. Ashok Nagar	25	2. Balagundi	18
3. Loha Mandi	25	3. Gwaltoli	25	3. Kumbharpara	20
4. Khandari	25	4. Arya Nagar	25	4. Nabakalebar Road	14
5. Sultangaj	25	5. Sisamau	25	5. Chari Nala	15
<b>D. South</b>		<b>D. South</b>		<b>D. South</b>	
1. Idgah	25	1. Kidwai Nagar	25	1. Ank Polanna	15
2. Namner	25	2. Bara Devi	25	2. Dola Mandapa Sahi	16
3. Sultanpura	25	3. Barra	25	3. Mati Mandal Sahi	15
4. Naulakha	25	4. Govind Nagar	25	4. Bali Nulia Sahi	105
5. Bundu Katra	25	5. Naubasta	25	5. Gauda Bada Sahi	67
<b>Total</b>	<b>500</b>	<b>Total</b>	<b>500</b>	<b>Total</b>	<b>500</b>

Source : Based on the discussion held with Government Officials and Map of the cities under consideration.

## **X. Plan of the Study**

Following the introductory Chapter I, Chapters II and III seek to examine the income and employment generation and social characteristics of the informal sector workers. Chapter IV

examines the working conditions and housing characteristics of informal sector workers. Chapter V is designed to examine the migration pattern, poverty profile and consumption pattern of informal sector workers, while Chapter VI explores the suitable rehabilitation schemes for unregistered informal sector workers. Finally, the concluding Chapter VII pieces together the evidences of earlier chapters and provides appropriate policy guidelines for improving the overall socio-economic conditions of informal sector workers in Agra, Kanpur and Puri cities.

## CHAPTER II

### EMPLOYMENT AND INCOME GENERATION

In the literature on urban economics, the contribution of informal sector in terms of income and employment has been well recognized. Generally, the contribution by informal sector ranged between 20 to 45 per cent in terms of income and between 20 to 65 per cent in terms of employment. In urban cities like Bombay, Jakarta and Nairobi, the employment by informal sector was estimated at 50 per cent,<sup>61</sup> 41 per cent<sup>62</sup> and 20 per cent<sup>63</sup> in Kumasi, 60-70 per cent<sup>64</sup> in Sao Paulo 35-40 per cent<sup>65</sup> in Calcutta<sup>66</sup> and Ahmedabad 45 per cent<sup>67</sup> and in Kanpur 37 per cent,<sup>68</sup> of city's total workforce.

In terms of income, this sector generated over 30 per cent of city's total income.<sup>69</sup> Although, the contribution by informal sector in terms of employment and income has been worked out across the cities, the contribution by unregistered component of informal sector has, rarely been recorded. It is doubtful and scattered and, therefore, very little has come to be known about the significance of unregistered informal sector in cities. To fill this gap, present chapter makes an attempt at examining the : (i) contribution of unregistered informal sector in terms of employment and income; (ii) productivity differentials; (iii) importance of income by unregistered informal sector in total income of city; and (iv) share of income from unregistered informal sector in the total income of household in Agra, Kanpur and Puri cities. Such an

<sup>61</sup> Joshi, H. and Joshi, V., *Surplus Labour and City : A Case Study of Bombay*, *Op.cit.*, 2.

<sup>62</sup> Sethuraman, S.V., *Jakarta Urban Development and Employment*, Geneva, ILO, 1976.

<sup>63</sup> ILO, *Employment, Income and Equity : A Study for Increasing Productive Employment in Kenya*, Geneva, 1972.

<sup>64</sup> Aryee, *Small Scale Manufacturing Activities*.

<sup>65</sup> Schaefer, K. Sao Paulo, *Urban Development and Employment*, Geneva, ILO.

<sup>66</sup> Bose, A.N., *The Informal Sector in the Calcutta Metropolitan Economy*, *Op.cit.*, 21.

<sup>67</sup> Papola, T.S., *Urban Informal Sector in Developing Economy*, *Op.cit.*, 1.

<sup>68</sup> Tiwari, R.S., *Role of Informal Sector in Urban Communities*, Himalaya Publishing House, 1997.

<sup>69</sup> Tiwari, R.,S., *Ibid.*, p.34.

exercise has been attempted across manufacturing and non-manufacturing unregistered segments of informal sector.

## I. Methodology

It may be recapitulated that city, "being an integral part of the much larger economic system, the task of its income and employment estimation is far more difficult and hazardous. City or any spatial unit of the district or state is more small and open and owing to this, the trade of goods and services constitutes an important segment of the city, for which information on many aspects are not generally available."<sup>70</sup> It has rightly been stressed that "first the information is not compiled taking the city as a spatial unit. Second, secrecy provisions whereby information at disaggregated level of industrial classification can not be divulged if the number of units is less than three in a particular industrial category, impinge rather harshly on the researcher trying to get information on the city economy."<sup>71</sup> In the present study, we have used value-added approach for estimating the income from unregistered manufacturing informal sector while income approach from unregistered non-manufacturing informal segment. The employment has been worked out by considering the field surveys conducted in three cities of Agra, Kanpur and Puri. It may be mentioned that owing to the non-availability of information base from published sources, we relied only on field surveys for estimating the income and employment for unregistered informal sector. It relates to the year 1998-99.

<sup>70</sup> Tiwari, R.S. *Op.cit.*, 68, pp.16-17.

<sup>71</sup> Kashyap, S.P., Tiwari, R.S. and Veena, D.R., Facets of an Urban Economy : Economic Base Study of Ahmedabad, Sardar Patel Institute of Economic and Social Research, Ahmedabad, Manager, Government of India Press, Nasik, 1984, p.10; Arora, S.L., Yadav, S.K., Thankachan, T. and Sahay, J., "Data Base for Employment Planning in Informal Sector" (ed. By Ramarujam, M.S., Awasthi, I.C. and Pandey, G.), in Employment Promotion in the Urban Informal Sector, New Age International (P) Ltd., 1998, pp.175-188.

## **II. Employment Generation**

### **II.1 Unregistered Informal Manufacturing Segment**

Based on the methodology discussed above, we may now discuss the employment generated from the unregistered informal manufacturing segment. This has been recorded in table II.1. A close examination of table II.1 suggests that in Agra, other manufacturing (NIC-38) significantly employed the unregistered workers 12.46 per cent, followed by basic metals (NIC-33) of 8.68 per cent. Paper printing and allied (NIC-28), food products (NIC-20&21) and repairs (NIC-39) have equally proportionately employed 8.30 per cent. The remaining unregistered manufacturing informal activities employed less than 8 per cent of workers.

In Kanpur, the corresponding economic activities are other manufacturing (NIC-38), leather (NIC-29) and repairs (NIC-39), which respectively employed 11.78 per cent, 9.42 per cent and to 8.24 per cent of workers employed in the unregistered manufacturing informal sector. The remaining economic activities employed to less than 8 per cent of workers, of the unregistered manufacturing informal sector workers. In Puri, such economic activities are food products (NIC-20&21), repairs (NIC-39) and other manufacturing (NIC-38), accounting for 29.78 per cent, 23.40 per cent and to 22.34 per cent, of total unregistered manufacturing informal sector workers. Other important economic activities, in order of importance, are paper, printing and allied (NIC-28) and rubber and plastic (NIC-30), which employed 7.45 per cent and to 5.32 per cent, of the total unregistered informal sector workers. The general finding of the study, thus, suggests that other manufacturing (NIC-38) and basic metals (NIC-33) in Agra, other manufacturing (NIC-38) and leather (NIC-29) in Kanpur and food and food products (NIC-20&21), repairs (NIC-39) and other manufacturing (NIC-38) in Puri have employed significantly the workers within the unregistered informal manufacturing segment (table II.1).



Table II.1 : City-wise Employment Generation from Unregistered Manufacturing Informal Segment : 1998-99

Sl. No.	NIC code no.	Manufacturing activities	Cities					
			Agra		Kanpur		Puri	
			Workers (No.)	%	Workers (No.)	%	Workers (No.)	%
1.	20&21	Food products	22	8.30	20	7.84	28	29.78
2.	23	Cotton textiles	20	7.55	20	7.84	2	2.13
3.	28	Paper, printing and allied	22	8.30	20	7.84	7	7.45
4.	29	Leather products	20	7.55	24	9.42	--	--
5.	30	Rubber and plastics	20	7.55	20	7.84	5	5.32
6.	31	Chemicals	21	7.92	20	7.84	1	1.06
7.	33	Basic metals	23	8.68	20	7.84	2	2.13
8.	34	Metal products	20	7.55	20	7.84	2	2.13
9.	35	Machinery	21	7.92	20	7.84	2	2.13
10.	36	Electrical machinery	21	7.92	20	7.84	2	2.13
11.	38	Other manufacturing	33	12.46	30	11.78	21	22.34
12.	39	Repairs	22	8.30	21	8.24	22	23.40
		Total	265	100.00	255	100.00	94	100.00

Source : Based on the sample of workers surveyed in each cities.

## II.2 Non-Manufacturing Informal Sector

Table II.2 exhibits the generation of employment within the unregistered non-manufacturing informal segment. It is revealed that in Agra services not elsewhere classified (NIC-99), personal services (NIC-96), storage and warehousing (NIC-74) and retail trade in others (NIC-68) have appeared as important economic activities, employing 10.64 per cent, 10.21 per cent, 9.79 per cent and to 9.79 per cent of the workers, of the unregistered non-manufacturing informal segment. The rest of economic activities are, however, found to be less significant and each has employed to less than 9 per cent of unregistered non-manufacturing informal sector workers.

The important economic activities in Kanpur are found to be retail trade in others (NIC-68) and services not elsewhere classified (NIC-99), which have employed 16.75 per cent and to 9.81 per cent of workers. The remaining economic activities are, however, found to be less significant and each activity has employed less than 9 per cent of unregistered non-manufacturing informal sector workers. In Puri, the major economic activities are services not elsewhere classified inclusive of fishing (NIC-99) followed by personal services (NIC-96), which employed respectively 66.75 per cent and to 12.80 per cent of workers. The other economic activities are, however, less important, which have employed to less than 6 per cent of unregistered non-manufacturing informal sector workers.

Table II.2 : City-wise Employment Generation from Unregistered Non-Manufacturing Informal Segment : 1998-99

Sl. No.	NIC code no.	Non-manufacturing activities	Cities					
			Agra		Kanpur		Puri	
			Workers (No.)	%	Workers (No.)	%	Workers (No.)	%
1.	60	Wholesale trade in food and miscellaneous manufacture	20	8.51	20	8.16	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	20	8.51	20	8.16	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	20	8.51	20	8.16	24	5.90
4.	66	Retail trade in textiles	20	8.51	20	8.16	9	2.22
5.	67	Retail trade in fuel and other household utilities and durable	20	8.51	20	8.16	14	3.45
6.	68	Retail trade in others	23	9.79	41	16.75	23	5.67
7.	69	Restaurants and hotels	20	8.51	20	8.16	12	2.96
8.	74	Storage and warehousing	23	9.79	20	8.16	1	0.25
9.	82	Real estate and business services	20	8.51	20	8.16	--	--
10.	96	Personal services	24	10.21	20	8.16	52	12.80
11.	99	Services not elsewhere classified	25	10.64	24	9.81	271	66.75
		Total	235	100.00	245	100.00	406	100.00

Source : Based on the sample of workers surveyed in each cities.

It emerges that services not elsewhere classified (NIC-99) and personal services (NIC-96) in Agra; retail trade (NIC-68) and services not elsewhere classified (NIC-99) in Kanpur; and

services not elsewhere classified including fishing (NIC-99) and personal services (NIC-96) in Puri are the major economic activities, which have employed significantly the workers within the unregistered non-manufacturing informal segment (table II.2). Taking all activities in all cities together, it has been discovered that services not elsewhere classified (NIC-99), personal services (NIC-96), retail trade in others (NIC-68) and other manufacturing (NIC-38) are the major employment generating economic activities and each has employed 21.31 per cent, 6.40 per cent, 5.80 per cent and 5.60 per cent individually of the total unregistered informal workers in three cities jointly (table II.3).

Table II.3 : Employment Generation from Unregistered Informal Segment : 1998-99

Sl. No.	NIC code no.	Manufacturing and non-manufacturing activities	All cities	
			Workers (No.)	%
1.	20&21	Food products	70	4.67
2.	23	Cotton textiles	42	2.80
3.	28	Paper, printing and allied	49	3.27
4.	29	Leather products	44	2.93
5.	30	Rubber and plastics	45	3.00
6.	31	Chemicals	42	2.80
7.	33	Basic metals	45	3.00
8.	34	Metal products	42	2.80
9.	35	Machinery	43	2.87
10.	36	Electrical machinery	43	2.87
11.	38	Other manufacturing	84	5.60
12.	39	Repairs	65	4.33
13.	60	Wholesale trade in food and miscellaneous manufacture	40	2.67
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	40	2.67
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	64	4.27
16.	66	Retail trade in textiles	49	3.27
17.	67	Retail trade in fuel and other household utilities and durable	54	3.60
18.	68	Retail trade in others	87	5.80
19.	69	Restaurants and hotels	52	3.47
20.	74	Storage and warehousing	44	2.93
21.	82	Real estate and business services	40	2.67
22.	96	Personal services	96	6.40
23.	99	Services not elsewhere classified	320	21.31
		Total	1500	100.00

Source : Based on the information of 1500 workers collected from all cities.

### **III. Income Generation**

#### **III.1 Unregistered Informal Manufacturing Segment**

Income generation from unregistered manufacturing informal segment has been recorded in table II.4. Based on the field survey, it is revealed that, in Agra, yearly income from this segment comes to Rs.87.96 lakhs and that for per person to Rs.33.19 thousand. There were, however, inter-activity differences. It is found that largest income has been generated by other manufacturing (NIC-38) and chemicals (NIC-31) being Rs.11.10 lakhs (or 12.62 per cent) and to Rs.10.09 lakhs (or 11.47 per cent). Other manufacturing (NIC-38), which also includes stone cutting and making of stone taj, toys and spiritual figures is of considerable importance. Next, in order of importance, comes to cotton textiles (NIC-23), which has generated the income of Rs.8.15 lakhs. The remaining economic activities are, however, found to be less significant, which have generated the annual income to less than 8 per cent, of the total income of sampled workers in Agra city.

So far as the productivity per person is concerned, it is discovered that chemicals (NIC-31) has the largest average productivity of Rs.48,057 followed by cotton textiles (NIC-23) of Rs.40,740. Next, in order of importance, comes the rubber and plastics (NIC-30), which has generated annually the income of Rs.35,040 per person. It may be mentioned that the annual income per person generated by chemicals (NIC-31), cotton textiles (NIC-23) and rubber and plastics (NIC-30) are also found higher than to that of average manufacturing sector of Rs.33,192.45 in Agra city. In remaining economic activities, the average productivity has been found lower than the average productivity of manufacturing sector as a whole. It emerges, therefore, that other manufacturing (NIC-38) and chemicals (NIC-31) are the major sources of

income generation. The average productivity in chemicals (NIC-31) is found highest, whereas, in food products (NIC-20&21) it turns out to be the lowest in Agra city (table II.4).

Table II.4 : City-wise Income Generation from Unregistered Manufacturing Informal Segment : 1998-99

Sl. No.	NIC code no.	Manufacturing products	Cities											
			Agra			Kanpur			Puri			Total		
			Yearly total income (Rs.)	%	Annual average income (Rs.)	Yearly total income (Rs.)	%	Annual average income (Rs.)	Yearly total income (Rs.)	%	Annual average income (Rs.)	Yearly total income (Rs.)	%	Annual average income (Rs.)
1.	20&21	Food products	611400	6.95	27790.92	510000	6.05	25500.00	691200	31.03	24685.68	1812600	9.32	25694.29
2.	23	Cotton textiles	814800	9.26	40740.00	801600	9.51	40080.00	64800	2.91	32400.00	1681200	8.64	40028.57
3.	28	Paper, printing and allied	654600	7.44	29754.60	777000	9.22	36850.00	208800	9.38	29628.52	1640400	8.43	33477.55
4.	29	Leather products	610800	6.94	30540.00	733200	8.70	30549.96	-	-	-	1344000	6.91	30545.45
5.	30	Rubber and plastics	700800	7.97	35040.00	792000	9.40	39600.00	103200	4.63	20640.00	1596000	8.21	35466.67
6.	31	Chemicals	1009200	11.47	48057.12	876000	10.40	43900.00	15000	0.67	15000.00	1900200	9.77	45242.86
7.	33	Basic metals	684000	7.78	29739.12	567600	6.74	26360.00	32400	1.45	16200.00	1284000	6.60	29539.33
8.	34	Metal products	661200	7.53	33060.00	656400	7.79	32620.00	64800	2.91	32400.00	1362400	7.11	32914.29
9.	35	Machinery	656400	7.46	31257.12	699600	8.30	34990.00	66000	2.96	33000.00	1422000	7.31	33069.76
10.	36	Electrical machinery	649200	7.38	30914.28	661200	7.85	33060.00	54000	2.42	27000.00	1364400	7.02	31730.23
11.	38	Other manufacturing	1110000	12.62	33636.36	811200	9.63	27039.96	402600	18.08	19171.44	2323800	11.95	27664.29
12.	39	Repairs	633600	7.20	28800.00	540000	6.41	25714.32	524400	23.56	23836.32	1696000	8.73	26123.08
		Total	6796000	100.0	33192.45	8425800	100.0	33042.35	2227200	100.0	23693.62	19449000	100.0	31675.90

Source : Based on the sample of workers surveyed in each cities.

In Kanpur, the total income from manufacturing segment comes to Rs.84.26 lakhs, in which the major contribution has been from the chemicals (NIC-31) 10.40 per cent, other manufacturing (NIC-38) 9.63 per cent, cotton textiles (NIC-23) 9.51 per cent, rubber and plastics (NIC-30) 9.40 pr cent and to paper, printing and allied (NIC-28) 9.22 per cent. Other economic activities are, however, found to be of secondary importance, which have contributed the income to less than 9 per cent in total income of the city economy.

The annual average income comes to Rs.33.04 thousand for the city as a whole. There are, however, inter-activity differentials. The annual average income has been found to be highest of Rs.43.80 thousand in chemicals (NIC-31), followed by Rs.40.08 thousand in cotton textiles (NIC-23). However, the income per person has been found to be lowest of Rs.25.50



thousand in food products (NIC-20&21). It is significant to note that the average productivity has been found to be higher in chemicals (NIC-31), cotton textiles (NIC-23), paper printing and allied (NIC-28), rubber and plastics (NIC-30) and machinery (NIC-35), whereas, lower in remaining economic activities than that of the city average (Rs.33.04 thousand). Thus, it emerges that chemicals (NIC-31) is the largest, while repairs (NIC-39) is lowest income generating activities per person. Also, average productivity has been found to be lowest in food products (table II.4).

In Puri,, total income comes to Rs.22.27 lakhs, of which, food products (NIC-20&21) accounts for the largest of 31.03 per cent, repairs(NIC-39) 23.56 per cent and other manufacturing (NIC-38) to 18.08 per cent, whereas chemicals (NIC-31) the smallest of 0.67 per cent. Paper, printing and allied (NIC-28) accounts for 9.38 per cent and rubber and plastics (NIC-30) to 4.63 per cent of city's total income. Thus, food products (NIC-20&21) account for the largest, while chemicals (NIC-31) the lowest in the total income of the city. The average productivity of the city comes to Rs.23,693.62, which is lower than that of machinery (NIC-35) of Rs.33,000, cotton textiles (NIC-23) of Rs.32,400, metal products (NIC-34) of Rs.32,400, paper, printing and allied (NIC-28) of Rs.29,828.52, electrical machinery (NIC-36) of Rs.27,000, food products (NIC-20&21) of Rs.24,685.68, and repairs (NIC-39) of Rs.23,836.32, whereas, higher than that of rubber and plastics (NIC-30) of Rs.20,640, repairs (NIC-39) of Rs.19,171, basic metal (NIC-33) of Rs.16,200 and chemicals (NIC-31) of Rs.15,000. Thus, food products is the largest and chemicals the smallest source of income generation. Also, average productivity has been found highest in machinery, whereas, lowest in chemicals (table II.4).

Considering all manufacturing activities in all cities together, it is found that total income comes to Rs.194.49 lakhs, of which, the major contribution has been made by other manufacturing (NIC-38) being 11.95 per cent, chemicals (NIC-31) 9.77 per cent and food

products (NIC-20&21) to 9.32 per cent. On the other hand, basic metals (NIC-33) contributed the smallest (6.60 per cent) of the total income in all cities. The average annual productivity comes to Rs.31,675.90, which is found higher than that of the basic metal (NIC-33) of Rs.28,533.33, other manufacturing (NIC-38) of Rs.27,664.29, repairs (NIC-39) of Rs.26,123.08, and food products (NIC-20&21) of Rs.25,894.29, but lower than that of the remaining manufacturing activities, such as, chemicals (NIC-31) of Rs.45,242.86, cotton textiles (NIC-23) of Rs.40,028.57, rubber and plastics (NIC-30) of Rs.35,466.67, paper, printing and allied (NIC-28) of Rs.33,477.55, machinery (NIC-35) of Rs.33,069.76, metal products (NIC-34) of Rs.32,914.29, and electrical machinery (NIC-36) of Rs.31,730.23. It suggests that other manufacturing is the largest but basic metal is smallest income generating activities within the manufacturing segment. Also, annual average productivity has been found highest in chemicals, while lowest in food products (table II.4).

### **III.2 Unregistered Non-Manufacturing Informal Sector**

Income generated from non-manufacturing segment has been presented in table II.5. In Agra, the income from this segment comes to Rs.86.17 lakhs, of which, the contribution by real estate and business services (NIC-82) comes to 17.51 per cent, retail trade in textiles (NIC-66) 10.50 per cent, storage and warehousing (NIC-74) 9.99 per cent, wholesale trade in all types of machinery and equipment including transport and electrical equipment (NIC-63) 9.43 per cent, services not elsewhere classified (NIC-99) 8.89 per cent, retail trade in fuel and other household utilities and durables (NIC-67) 8.84 per cent and wholesale trade in food and miscellaneous manufacturers (NIC-60) to 8.21 per cent. However, the contribution by restaurants and hotels (NIC-69) has been found to be the lowest (4.86 per cent). It appears that real estate and business services (NIC-82) has contributed the largest, while restaurants and hotels (NIC-69) the smallest in the total income of the city economy.

The average productivity for the city comes to Rs.36,666.38, which is lower than that of real estate and business services (NIC-82) of Rs.75,450.00, retail trade textiles (NIC-66) of Rs.45,240.00, wholesale trade in all types of machinery and equipment including transport and electrical equipments (NIC-63) of Rs.40,620.00, retail trade in fuel and other household utilities and durables (NIC-67) of Rs.38,100.00 and storage and warehousing (NIC-74) of Rs.37,460.88, whereas, higher than the remaining economic activities. Thus, real estate and business services is the largest while restaurants and hotels the smallest source of income generation. Also, average productivity has been found highest in real estate and business services (NIC-82) of Rs.75,450.00, whereas, lowest in personal service (NIC-96) of Rs.21,924.96 (table II.5).

Table II.5 : City-wise Income Generation from Unregistered Non-Manufacturing Informal Segment : 1998-99

Sl. No.	NIC code no.	Non-manufacturing activities	Cities											
			Agra			Kanpur			Puri			Total		
			Yearly total income (Rs.)	%	Annual average income (Rs.)	Yearly total income (Rs.)	%	Annual average income (Rs.)	Yearly total income (Rs.)	%	Annual average income (Rs.)	Yearly total income (Rs.)	%	Annual average income (Rs.)
1.	60	Wholesale trade in food and miscellaneous manufacture	707400	8.21	35370.00	651600	6.95	32580.00	—	—	—	1359000	4.77	33975.00
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	812400	9.43	40620.00	675600	7.20	33780.00	—	—	—	1488000	5.22	37200.00
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	679200	7.88	33960.00	771600	8.21	38580.00	667200	6.36	27800.04	2118000	7.44	33093.75
4.	66	Retail trade in textiles	904800	10.50	45240.00	882000	9.40	44100.00	264000	2.52	29333.28	2050800	7.20	41653.06
5.	67	Retail trade in fuel and other household utilities and durable	762000	8.84	38100.00	890400	9.49	44520.00	468000	4.46	33428.52	2120400	7.44	39266.67
6.	68	Retail trade in others	670200	7.78	29139.13	1700400	18.13	41473.20	636000	6.06	27652.20	3006600	10.56	34558.62
7.	69	Restaurants and hotels	418800	4.86	20940.00	517200	5.52	25860.00	201000	1.92	16749.96	1137000	3.99	21865.38
8.	74	Storage and warehousing	861600	9.99	37460.88	510000	5.44	25500.00	19200	0.18	19200.00	1390600	4.88	31609.09
9.	82	Real estate and business services	1509000	17.51	75450.00	1316400	14.04	65820.00	—	—	—	2825400	9.92	70635.00
10.	96	Personal services	528200	6.11	21924.96	705600	7.52	35280.00	1141800	10.88	21957.72	2373600	8.33	24725.00
11.	99	Services not elsewhere classified	765000	8.89	30600.00	757200	8.10	31550.04	7093200	67.62	26174.16	8615400	30.25	26923.13
		Total	8616600	100.0	36666.38	9378000	100.0	38277.55	10480400	100.0	25838.42	28485000	100.0	32150.11

Source : Based on the sample of workers surveyed in each cities.

The income in Kanpur comes to Rs.93.78 lakhs, of which, the primary contribution has been made by retail trade in others (NIC-68) of 18.13 per cent and real estate and business services (NIC-68) of 14.04 per cent. The contribution by remaining economic activities has been found to be less than 10 per cent in the total income from this segment. It is interesting to note that retail trade in others (NIC-68) has the largest share (18.13 per cent) while storage and warehousing (NIC-74) the smallest (5.44 per cent), of the total income of the city from this segment. The average annual productivity of the Kanpur city comes to Rs.38,277.55, which is higher than that of personal services (NIC-96) of Rs.35,280.00, wholesale trade in all types of machinery and equipment, etc. (NIC-63) of Rs.33,780.00, wholesale trade in food and miscellaneous manufactures (NIC-60) of Rs.32,580.00, services not elsewhere classified (NIC-99) of Rs.31,550.04, restaurants and hotels (NIC-69) of Rs.25,860.00, storage and warehousing (NIC-74) of Rs.25,500.00, whereas, lower in remaining economic activities. Thus, average productivity is highest in real estate and business services (NIC-82) of Rs.65,820.00, while lowest in storage and warehousing (NIC-74) of Rs.25,500.00 (table II.5).

In Puri city, the total income from this segment comes to Rs.104.90 lakhs. Of this, the contribution by services not elsewhere classified (NIC-99) comes to 67.62 per cent and that by personal services (NIC-96) to 10.88 per cent. The remaining economic activities have, however, contributed to less than 7 per cent in city's total income from this segment. It is significant to note that services not elsewhere classified (NIC-99), which includes fishing in Puri has contributed quite considerably of 67.62 per cent in city's total income, while storage and warehousing (NIC-74) the least of 0.18 per cent. The average productivity of the city has been found to be Rs.25,838.42 from this segment, which is found to be higher than the average productivity of restaurants and hotels (NIC-69) of Rs.16,749.96, storage and warehousing (NIC-74) of Rs.19,200.00 and personal services (NIC-96) of Rs.21,957.72. In

remaining economic activities the average productivity has been found lower than the city economy. It is significant observation that average productivity in retail trade in fuel and other household utilities and durable (NIC-67) has been found highest of Rs.33,428.52, whereas, that of restaurants and hotels (NIC-69) the lowest of Rs.16,749.96 (table II.5).

If we consider manufacturing and non-manufacturing activities in all cities together, it is found that city has generated the income of Rs.284.85 lakhs, out of which services not elsewhere classified (NIC-99) has contributed the largest income of 30.24 per cent and retail trade in others (NIC-68) of 10.56 per cent. However, the contribution by restaurants and hotels (NIC-69) is found to be the lowest of 3.99 per cent. Average productivity comes to Rs.32,150.11, which is lower than that of real estate and business services (NIC-82) of Rs.70,635.00, retail trade in textiles (NIC-66) of Rs.41,853.06, retail trade in fuel and other household utilities and durable (NIC-67) of Rs.39,266.67, etc. but higher than that of services not elsewhere classified (NIC-99) of Rs.26,923.13, personal services (NIC-96) of Rs.24,725.00 and restaurants and hotels (NIC-69) of Rs.21,865.38. The average productivity has been found highest in real estate and business services (NIC-82) of Rs.70,635.00, whereas, lowest in restaurants and hotels (NIC-69) of Rs.21,865.38. The above analysis thus tends to suggest that services not elsewhere classified (NIC-99) is the largest but restaurants and hotels (NIC-69) the smallest income generating activities. Also, average productivity has been found largest in case of real estate and business services (NIC-82) but smallest in restaurants and hotels (table II.5).

A comparative statement of employment and income generation across the cities from unregistered informal sector has been provided in table II.6. It is evident that manufacturing segment has generated the employment to 53 per cent in Agra, 51 per cent in Kanpur and to 18.80 per cent in Puri. The income generated from manufacturing segment comes to 50.52 per



cent in Agra, 47.33 per cent in Kanpur and to 17.51 per cent in Puri. Similarly, employment generated by non-manufacturing segment comes to 47 per cent in Agra, 49 per cent in Kanpur and to 81.20 per cent in Puri. In terms of income generation, Agra accounts for 49.48 per cent, Kanpur 52.67 per cent and Puri to 82.49 per cent.

**Table II.6 : Employment and Income Generation from Unregistered Informal Segment in Selected Cities : 1998-99**

Districts	Particulars	Unregistered informal sector activities		
		Manu- facturing	Non-manu- facturing	Total
Agra	Workers (No.)	265	235	500
	Percentage	53.00	47.00	100.00
	Annual total income (Rs.)	8796000	8616600	17412600
	Percentage	50.52	49.48	100.00
	Annual income per person (Rs.)	33192.45	36666.38	34825.20
Kanpur	Workers (No.)	255	245	500
	Percentage	51.00	49.00	100.00
	Annual total income (Rs.)	8425800	9378000	17803800
	Percentage	47.33	52.67	100.00
	Annual income per person (Rs.)	33042.35	38277.55	35607.60
Puri	Workers (No.)	94	406	500
	Percentage	18.80	81.20	100.00
	Annual total income (Rs.)	2227200	10490400	12717600
	Percentage	17.51	82.49	100.00
	Annual income per person (Rs.)	23693.62	25838.42	25435.20
Total	Workers (No.)	614	886	1500
	Percentage	40.93	59.07	100.00
	Annual total income (Rs.)	19449000	28485000	47934000
	Percentage	40.57	59.43	100.00
	Annual income per person (Rs.)	31675.90	32150.11	31956.00

In all cities taken together, employment from the manufacturing segment comes to 40.93 per cent while that from non-manufacturing to 59.07 per cent. Also, income generated by manufacturing segment comes to 40.57 per cent, while that from non-manufacturing to 59.43 per cent. It, thus, tends to suggest that manufacturing segment of unregistered informal

sector is of crucial importance both in terms of employment and income generation in Agra, while non-manufacturing in Puri city. In Kanpur, manufacturing sector emerges of vital importance in terms of employment generation, while non-manufacturing segment in term income generation. In all cities together, non-manufacturing segment is of vital significance both in terms of employment and income generation.

The annual average productivity has been found to be higher in non-manufacturing than to that of manufacturing in Agra, Kanpur, Puri and in all cities taken together. It is significant to note that average productivity from manufacturing of the non-manufacturing comes to 90.53 per cent in Agra, 86.32 per cent in Kanpur and to 91.70 per cent in Puri city. In all cities taken together, average productivity from manufacturing segment comes to 98.53 per cent to that of non-manufacturing segment (table II.6).

#### **IV. Contribution of Unregistered Informal Sector in Total Income of City Economy**

We may now look into the share of unregistered informal sector in the total income of the city economy. It is, however, a difficult task. The population figures for the cities under reference are found available only upto the year 1991. The population for the year 1999, has, thus, been projected by applying annual average growth rate of population between 1981 to 1991. Projection procedure has also been followed for arriving the NNP per capita for the year 1999 in Agra and Kanpur. Thus, by multiplying the NNP per capita with population, we arrived at the total income of Agra and Kanpur cities. In case of Puri, while it is possible to arrive population figure for 1999, the NNP per capita has not been found readily available. Instead, we used per capita income arrived from the field based investigation. Thus, by multiplying NNP per capita with population for 1999, we worked out the total income of the Puri.

Based on the above procedure, we may now discuss the contribution of unregistered informal sector in the total income of the cities. Table II.7 records such information. It has been discovered that unregistered informal segment, which has been surveyed accounts for 0.86 per cent of income in Puri, 0.49 per cent in Agra and to 0.17 per cent in Kanpur. It may be inferred that unregistered informal sector is relatively more important in Puri than that in Agra and Kanpur. It is significant to note that unregistered segment of informal sector based on the field survey is quite insignificant in case of Kanpur city. In all cities taken together, the income from unregistered segment of informal sector accounts for 0.30 per cent of total income of all cities in 1999. It may be pointed out that estimation of share of unregistered informal sector based on field surveys in Agra, Kanpur and Puri cities is nearly a rough indication. It may be more accurately estimated with the help of a separate study at a project level designed for this purpose.

Table II.7 : Contribution of Income from Unregistered Informal Sector in Total Income of City Economy : 1999

Cities	Total Income (Rs. Lakhs)	Income generated from unregistered informal sector (Rs. Lakhs)	3 as % of 2
1	2	3	4
Agra	35884.67	174.13	0.49
Kanpur	106707.95	178.04	0.17
Puri	14709.63	127.02	0.86
Total	157302.25	479.19	0.30

Source : Statistical Diary, Kanpur and Agra, Economics and Statistics Department, State Planning Institute, Lucknow; District Statistical Hand Book, 1997, Puri, Directorate of Economics and Statistics, Orissa, Bhubaneswar; Surveys conducted for 1500 workers in three districts of Agra, Kanpur and Puri.

**V. Contribution of Income by Unregistered Informal Sector in the Income of Household**

We may now examine the significance of income generated by unregistered informal sector in the total income of household. It has been given in table II.8 based on the 1500 workers employed in different manufacturing and non-manufacturing activities. In Agra we find that 52.04 per cent of income of household has been generated by the unregistered manufacturing informal sector as a whole. There are, however, inter-activity differences. In Agra, income of households emanating from unregistered manufacturing informal sector in case of cotton textiles (NIC-23), leather products (NIC-29), chemicals (NIC-31), basic metals (NIC-33), other manufacturing (NIC-38), repairs (NIC-39) and food products (NIC-20&21) are found higher than the income of households from unregistered manufacturing informal sector as a whole (52.04 per cent). The contribution of income by remaining manufacturing activities in the total income of household is found lower than to that of unregistered manufacturing informal sector (52.04 per cent). It is noted that contribution of income is highest (59.46 per cent) in chemicals (NIC-31), whereas lowest (41.18 per cent) in electrical machinery (NIC-36).

Within the non-manufacturing segment, the corresponding income from wholesale trade in food and miscellaneous manufactures (NIC-60), retail trade in textiles (NIC-66), retail trade in fuel and other household utilities and durables (NIC-67), real estate and business services (NIC-82) and services not elsewhere classified (NIC-99) have been found to be higher than the income of households from unregistered non-manufacturing informal sector as a whole (59.16 per cent). The corresponding income from remaining non-manufacturing activities has been found to be lower than the average contribution by unregistered non-manufacturing informal sector as a whole.

Table II.8 : **Contribution of Income by Unregistered Informal Sector Activities in the Total Income of Households in Selected Cities : 1998-99**

Sl. No.	NIC code no	Manufacturing and non-manufacturing activities	Annual income from unregistered informal sector activities as a % of total income of household			
			Agra	Kanpur	Puri	Total
1.	20&21	Food products	53.55	69.67	77.84	65.63
2.	23	Cotton textiles	58.68	64.74	79.41	62.10
3.	28	Paper, printing and allied	46.54	66.69	81.88	34.56
4.	29	Leather products	55.48	60.83	--	58.28
5.	30	Rubber and plastics	44.03	67.14	47.51	53.95
6.	31	Chemicals	59.46	76.04	100.00	66.37
7.	33	Basic metals	55.83	75.32	52.94	62.94
8.	34	Metal products	45.33	57.11	87.80	52.25
9.	35	Machinery	49.28	54.22	64.71	52.21
10.	36	Electrical machinery	41.18	53.16	100.00	47.42
11.	38	Other manufacturing	56.14	59.40	54.73	57.07
12.	39	Repairs	59.23	55.42	79.53	62.78
		Sub-Total	52.04	62.58	70.65	56.14
13.	60	Wholesale trade in food and miscellaneous manufactures	61.76	61.36	--	61.57
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	58.61	62.63	--	60.37
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	58.77	58.91	83.55	64.60
16.	66	Retail trade in textiles	63.74	67.87	88.35	67.95
17.	67	Retail trade in fuel and other household utilities and durable	69.47	72.92	93.41	75.19
18.	68	Retail trade in others	41.54	71.35	57.11	58.84
19.	69	Restaurants and hotels	45.80	60.31	63.57	54.41
20.	74	Storage and warehousing	52.87	59.52	100.00	55.51
21.	82	Real estate and business services	73.31	67.60	--	70.56
22.	96	Personal services	56.93	71.01	63.74	63.96
23.	99	Services not elsewhere classified	62.12	49.65	58.30	57.75
		Sub-Total	59.16	64.53	61.68	61.77
		Total	55.37	63.59	63.09	59.41

Source : Field Surveys carried out for 1500 workers in cities of Agra, Kanpur and Puri.

In Kanpur, the contribution of income by unregistered manufacturing informal sector in the total income of household comes to 62.68 per cent. Such activities are paper, printing and allied (NIC-28), food products (NIC-20&21), cotton textiles (NIC-23), rubber and plastics (NIC-30), chemicals (NIC-31) and basic metals (NIC-33) contributing to over 62.58 per cent of income, of the total income of households. On the other hand, leather products (NIC-29), metal



products (NIC-34), machinery (NIC-35), electric machinery (NIC-36), other manufacturing (NIC-38), and repairs (NIC-30) have generated the income to less than 62.58 per cent. It is significant to note that within the manufacturing sector, chemicals has contributed the largest, while electrical machinery the smallest in the total income of households.

Of the total income of households, the income from unregistered informal non-manufacturing, segment comes to 64.53 per cent. Across different non-manufacturing informal activities, of the total household income by retail trade in textile (NIC-66), retail trade in fuel and other household utilities and durable (NIC-67), retail trade in others (NIC-68), real estate and business services (NIC-82) and personal services (NIC-96) has been found more than the average income contribution (64.53 per cent) by the non-manufacturing informal sector as a whole. The reverse is found true in case of remaining non-manufacturing economic activities. It is to be noted that share in household income has been found largest of 72.92 per cent by retail trade in fuel and other household utilities and durable (NIC-67) whereas, lowest of 49.65 per cent by services not elsewhere classified (NIC-99).

In Puri, within the manufacturing unregistered informal sector, electric machinery (NIC-36), chemical (NIC-31), paper, printing and allied (NIC-28), repairs (NIC-39), cotton textiles (NIC-23) and food products (NIC-20&21) have generated over 70.65 per cent of income of household. The remaining manufacturing activities, such as other manufacturing (NIC-38), basic metals (NIC-33) and machinery (NIC-35) have generated the income to less than 70.65 per cent of income of households. It is significant to note that share of income in total income of household is largest from chemicals (NIC-31) and electrical machinery (NIC-36) being 100 per cent in each cases while smallest in basic metals (NIC-33) of 52.94 per cent.

Of the total income of household, the income generated by non-manufacturing informal segment comes to 61.68 per cent. The contribution of income in case of almost all non-

manufacturing activities are found over 61.68 per cent except retail trade in others (NIC-68) and personal services (NIC-96) and each has accounted for over 61.68 per cent, of household income. It is interesting observation that within the non-manufacturing segment, the contribution of income is found largest by storage and warehousing (NIC-74) being 100 per cent, while smallest in retail trade in others (NIC-68) of 57.11 per cent.

Considering unregistered manufacturing and non-manufacturing together, we find that, of the total household income, 55.37 per cent of income has been generated in Agra, 63.59 per cent in Kanpur and to 63.09 per cent in Puri. In all cities taken together, 59.41 per cent of household income have been generated by the unregistered informal sector. In Agra, the largest income generating activity is the chemicals (NIC-31) within the unregistered informal manufacturing and real estate and business services (NIC-82) in the unregistered informal non-manufacturing sector. In sharp contrast to above, the least income generating activity is electrical machinery (NIC-36) within the unregistered informal manufacturing and retail trade in others (NIC-68) in the unregistered informal non-manufacturing sector.

In Kanpur, the largest income generating activity has been the chemicals (NIC-31) in the unregistered informal manufacturing, while retail trade in fuel and other household utilities and durable (NIC-67) within the unregistered informal non-manufacturing segment. On the other hand, least income generating activity has been found to be the electrical machinery (NIC-36) within the manufacturing, while, services not elsewhere classified (NIC-99) within the non-manufacturing segment. Similarly, in Puri, the largest income generating activities are electrical machinery (NIC-36) and chemicals (NIC-31) within the unregistered informal manufacturing, while storage and warehousing (NIC-74) within the unregistered informal non-manufacturing sector. On the other hand, least income generating activity has been found to be

the basic metals (NIC-33) in the unregistered informal manufacturing, while retail trade in others (NIC-68) within the unregistered informal non-manufacturing segment.

In all cities together, chemicals emerges as largest income generating within the unregistered informal manufacturing, while retail trade in fuel and other household utilities and durable (NIC-67) within the unregistered informal non-manufacturing. In sharp contrast to above, paper, printing and allied (NIC-28) in the unregistered manufacturing and restaurants and hotels (NIC-69) in the unregistered non-manufacturing segment emerged as least income generating informal activities in all cities during 1999.

## VI. Summing up

Before we summarize various empirical evidences, it is worthwhile to mention that the stress has been more on 'how much' and not so much on 'how' the income and employment has been estimated. This is due mainly to the lack of precise information base at the city level from the published sources. Such a problem is more complex, when the study is confined to estimate the income and employment from the unregistered part of informal sector. This is because data on above aspects are not available at all, which compels researchers to rely only on a sample of field based investigations. Since the unregistered part of informal sector is not known, it is not possible to blow up the sample for estimation of employment and income for the city as a whole. Thus, considering the limitations outlined above, the income and employment estimated in the present exercise may only be treated as rough estimates for the cities based on field investigations of sample of workers that too are based on various assumptions, projections and approximations. A fresh study at the project level in a more quantitative precision on census basis is, therefore, called for taking city as a spatial unit. Given the framework per-se, we may now summarize below the employment and income generation in the unregistered informal sector.

The general findings of the study tend to suggest that other manufacturing (NIC-38) is the largest employment generating activity within the manufacturing sector in Agra and Kanpur, while food products (NIC-20&21) in Puri city. Within the non-manufacturing segment, the corresponding activity is services not elsewhere classified (NIC-99) in Agra and Puri and retail trade in others (NIC-68) in Kanpur. Taking all cities together in manufacturing and non-manufacturing segments, the largest employment generating activity has been found to be the services not elsewhere classified (NIC-99).

As far as the income generation, the corresponding activity within manufacturing segment has been found to be the other manufacturing (NIC-38) in Agra, chemicals (NIC-31) in Kanpur, food products (NIC-20&21) in Puri and other manufacturing (NIC-38) in all cities as a whole. The respective activity within the non-manufacturing segment turns out to be the real estate and business services (NIC-82) in Agra, retail trade in others (NIC-68) in Kanpur and services not elsewhere classified (NIC-99) in Puri and in all cities taken together. Between manufacturing and non-manufacturing segments across cities, finding suggests that, in Agra, manufacturing segment is more income and employment generating than the non-manufacturing segment, while in Puri, non-manufacturing has been found as more employment and income generating vis-à-vis the manufacturing segment. In Kanpur, whereas manufacturing is found as more employment generating, the non-manufacturing turns out as highly income generating segment. In all cities together, non-manufacturing has been found as more employment and income generating than the manufacturing segment.

The yearly productivity per person has been found higher in non-manufacturing than the manufacturing in Agra, Kanpur, Puri and in all cities as a whole. Specially, average annual productivity in the manufacturing segment, has been found largest in chemicals (NIC-31) in

Agra and Kanpur, food products (NIC-20&21) in Puri and chemicals (NIC-31) in all cities. Within the non-manufacturing segment, annual average productivity has been found largest in real estate and business services (NIC-82) in Agra and Kanpur, retail trade in fuel and other household utilities and durable (NIC-67) in Puri and real estate in business services (NIC-82) in all cities considered together.

Of the city's income, the income generated by unregistered informal sector accounts for 0.86 per cent in Puri, 0.49 per cent in Agra, 0.17 per cent in Kanpur and to 0.30 per cent in all cities. It suggests that income generated by sample of informal sector workers is more significant in Puri than the rest. Between Agra and Kanpur, it is more important in Agra than that in Kanpur and in all cities taken together. The study also examines the contribution of income by informal sector workers in the total income of household. It is discovered that income earned from unregistered informal sector comes to 55.37 per cent in Agra, 63.59 per cent in Kanpur, 63.09 per cent in Puri and to 59.41 per cent in all cities together, of the total income of household. Thus, it may be inferred that unregistered informal segment is critically important with a view to sustain the livelihood of workers engaged in it.

It may be mentioned that present study is only rough indication, which is based on various assumptions and approximation. Also, it has not taken into account the formal sector and registered segment of the informal sector. It would be, therefore, useful and rewarding to examine and analyze the income and employment generating capacity of unregistered informal segment vis-à-vis the formal sector and registered segment of the informal sector. Taking these aspects into consideration, a fresh study at project level on census basis is called for in proper perspective. With above background, we may now move on to chapter III for examining the social characteristics of workers engaged in unregistered segment of informal sector.



## CHAPTER III

### SOCIAL CHARACTERISTICS OF UNREGISTERED INFORMAL SECTOR WORKERS

Previous chapter examined the income and employment generation from different economic activities. It needs to be supplemented by other important socio-economic aspects also. As a backdrop, the present chapter makes an attempt at examining the principal social characteristics of unregistered informal sector workers. In particular, it examines empirically : (i) the age of unregistered informal sector workers; (ii) sex-wise classification of workers; (iii) workers by religion; (iv) workers by caste; (v) marital status of workers; (vi) educational background of workers; and (vii) types of workers. This has been attempted for sample of 500 workers engaged in : (i) manufacturing and (ii) non-manufacturing economic activities in (i) Agra, (ii) Kanpur and (iii) Puri cities.

#### I. Workers by Age

##### I.1 Manufacturing Segment

Table III.1 distributes unregistered manufacturing informal sector workers into : (i) upto 18; (ii) 19-25; (iii) 26-30; (iv) 31-35; (v) 36-40; (vi) 41-45; and (vii) over 45 years of age. In Agra, within this segment, a largest number of workers (26.79 per cent) are found within the age group of 26 to 30 years; 20.75 per cent 19-25 years; 16.98 per cent >45 years; 11.70 per cent 36-40 years; 9.81 per cent 31-35 years; 7.55 per cent 15-18 years; and to 6.42 per cent within the age group of 41-45 years. In manufacturing segment, therefore, workers belonging

to 26-30 years of age have been found relatively more significant than the other types of workers. This has been the outcome of large scale employment observed for this particular age group, which is seem to be 40.91 per cent in (i) paper, printing and allied (NIC-28); 30 per cent in (ii) leather products (NIC-29); 47.62 per cent in (iii) chemicals (NIC-31); 34.77 per cent in (iv) basic metals (NIC-33); 38.1 per cent in (v) electrical machinery (NIC-36); and to 27.27 per cent in (vi) other manufacturing (NIC-38).

Within the unregistered manufacturing segment in Kanpur, 24.31 per cent of workers are from the age group of 26-30years; 23.53 per cent 19-25 years; 16.08 per cent 31-35 years; 12.55 per cent 36-40 years; 10.98 per cent 41-45 years; 8.63 per cent over 45 years; and to 3.92 per cent of workers upto 18years of age. Thus, a majority of informal sector workers is found youngsters, which are from the age group of 26 to 30 years. This has been an outcome of employment of workers for this particular age group, being to 40 per cent in (i) paper, printing and allied (NIC-28); 30 per cent in (ii) chemicals (NIC-31); and to 35 per cent in (iii) electrical machinery (NIC-36).

At various manufacturing activities, variations have also been noted. For example, a majority of workers in (i) food products (NIC-20&21); (ii) cotton textiles(NIC-23); (iii) leather products (NIC-29); and in (iv) machinery (NIC-35) is found confined within 19-25 years of age. Workers in corresponding activities are : 35 per cent, 35 per cent, 33 per cent, 25 per cent and to 30 per cent respectively. Workers in the age group of 31-35 years are found largest in rubber and plastics (NIC-30) and in basic metals (NIC-33) being 40 per cent and to 25 per cent respectively. In other manufacturing (NIC-38) the largest workers are found within the age group of 36-40 years. On the basis of general observation, we find that a majority of unregistered manufacturing informal sector workers is relatively young, which belong upto 35 years of age (table III 1).

Table III.1 : Unregistered Manufacturing Informal Workers by Age : 1999

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Agra							
			Age of workers (in years)							Total workers
			Upto 18	19-25	26-30	31-35	36-40	41-45	>45	
1.	20&21	Food products	1 (4.55)	7 (31.82)	5 (22.72)	5 (22.72)	1 (4.55)	--	3 (13.64)	22 (100.00)
2.	23	Cotton textiles	--	1 (5.00)	5 (25.00)	--	4 (20.00)	2 (10.00)	8 (40.00)	20 (100.00)
3.	28	Paper, printing and allied	1 (4.55)	5 (22.72)	9 (40.91)	4 (18.18)	1 (4.55)	2 (9.09)	--	22 (100.00)
4.	29	Leather products	2 (10.00)	3 (15.00)	6 (30.00)	1 (5.00)	2 (10.00)	2 (10.00)	4 (20.00)	20 (100.00)
5.	30	Rubber and plastics	2 (10.00)	6 (30.00)	1 (5.00)	3 (15.00)	2 (10.00)	--	6 (30.00)	20 (100.00)
6.	31	Chemicals	1 (4.76)	2 (9.52)	10 (47.62)	3 (14.29)	3 (14.29)	1 (4.76)	1 (4.76)	21 (100.00)
7.	33	Basic metals	2 (8.70)	5 (21.74)	8 (34.77)	1 (4.35)	2 (8.70)	1 (4.35)	4 (17.39)	23 (100.00)
8.	34	Metal products	2 (10.00)	6 (30.00)	5 (25.00)	1 (5.00)	--	1 (5.00)	5 (25.00)	20 (100.00)
9.	35	Machinery	1 (4.76)	3 (14.29)	2 (9.52)	2 (9.52)	5 (9.52)	2 (9.52)	6 (28.57)	21 (100.00)
10.	36	Electrical machinery	1 (4.76)	7 (33.33)	8 (38.10)	1 (4.76)	3 (14.29)	1 (4.76)	--	21 (100.00)
11.	38	Other manufacturing	1 (3.03)	8 (24.24)	9 (27.27)	3 (9.09)	7 (21.22)	3 (9.09)	2 (6.06)	33 (100.00)
12.	39	Repairs	6 (27.27)	2 (9.09)	3 (13.63)	2 (9.09)	1 (4.55)	2 (9.09)	6 (27.28)	22 (100.00)
		Total	20 (7.55)	55 (20.75)	71 (26.79)	26 (9.81)	31 (11.70)	17 (6.42)	45 (16.98)	265 (100.00)

Table III.1 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Kanpur							
			Age of workers (in years)							
			Upto 18	19-25	26-30	31-35	36-40	41-45	>45	Total workers
1.	20&21	Food products	2 (10.00)	7 (35.00)	4 (20.00)	3 (15.00)	2 (10.00)	1 (5.00)	1 (5.00)	20 (100.00)
2.	23	Cotton textiles	1 (5.00)	7 (35.00)	6 (30.00)	--	--	2 (10.00)	4 (20.00)	20 (100.00)
3.	28	Paper, printing and allied	--	2 (10.00)	8 (40.00)	3 (15.00)	2 (10.00)	2 (10.00)	3 (15.00)	20 (100.00)
4.	29	Leather products	--	8 (33.33)	4 (16.67)	5 (20.83)	4 (16.67)	1 (4.17)	2 (8.33)	24 (100.00)
5.	30	Rubber and plastics	--	4 (20.00)	6 (30.00)	8 (40.0)	--	1 (5.00)	1 (5.00)	20 (100.00)
6.	31	Chemicals	1 (5.00)	3 (15.00)	6 (30.00)	3 (15.00)	2 (10.00)	3 (15.00)	2 (10.00)	20 (100.00)
7.	33	Basic metals	1 (5.00)	4 (20.00)	5 (25.00)	5 (25.00)	4 (20.00)	--	1 (5.00)	20 (100.00)
8.	34	Metal products	--	5 (25.00)	4 (20.00)	2 (10.00)	2 (10.00)	5 (25.00)	2 (10.00)	20 (100.00)
9.	35	Machinery	--	6 (30.00)	3 (15.00)	6 (30.00)	3 (15.00)	2 (10.00)	--	20 (100.00)
10.	36	Electrical machinery	--	5 (25.00)	7 (35.00)	2 (10.00)	3 (15.00)	2 (10.00)	1 (5.00)	20 (100.00)
11.	38	Other manufacturing	1 (33.33)	5 (16.67)	5 (16.67)	3 (10.00)	8 (26.66)	5 (16.67)	3 (10.00)	30 (100.00)
12.	39	Repairs	4 (19.05)	4 (19.05)	4 (19.05)	1 (4.76)	2 (9.52)	4 (19.05)	2 (9.52)	21 (100.00)
		Total	10 (3.92)	60 (23.53)	62 (24.31)	41 (16.08)	32 (12.55)	28 (10.98)	22 (8.63)	255 (100.00)

Table III.1 (contd....)

Sl. No.	NIC code no	Manufacturing products	(Workers in No.)							
			Puri							
			Age of workers (in years)							Total workers
			Upto 18	19-25	26-30	31-35	36-40	41-45	>45	
1.	20&21	Food products	--	2 (7.14)	4 (14.29)	6 (21.43)	8 (28.57)	3 (10.71)	5 (17.86)	28 (100.00)
2.	23	Cotton textiles	--	--	--	1 (50.00)	1 (50.00)	--	--	2 (100.00)
3.	28	Paper, printing and allied	--	1 (14.29)	1 (14.29)	--	1 (14.29)	2 (28.56)	2 (28.57)	7 (100.00)
4.	29	Leather products	--	--	--	--	--	--	--	--
5.	30	Rubber and plastics	--	--	1 (20.00)	1 (20.00)	1 (20.00)	--	2 (40.00)	5 (100.00)
6.	31	Chemicals	--	1 (100.0)	--	--	--	--	--	1 (100.00)
7.	33	Basic metals	--	--	2 (100.0)	--	--	--	--	2 (100.00)
8.	34	Metal products	--	--	1 (50.00)	1 (50.00)	--	--	--	2 (100.00)
9.	35	Machinery	--	--	--	--	--	1 (50.00)	1 (50.00)	2 (100.00)
10.	36	Electrical machinery	--	--	--	--	--	2 (100.0)	--	2 (100.00)
11.	38	Other manufacturing	--	5 (23.80)	3 (14.29)	3 (14.29)	3 (14.29)	3 (14.29)	4 (19.04)	21 (100.00)
12.	39	Repairs	1 (4.54)	4 (18.18)	3 (13.64)	3 (13.64)	8 (36.36)	--	3 (1.64)	22 (100.00)
		Total	1 (1.06)	13 (13.83)	15 (15.96)	15 (15.96)	22 (23.40)	11 (11.70)	17 (18.09)	94 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.



Within the manufacturing segment in Puri, a majority of workers (23.40 per cent) is found within 36-40 years of age, whereas, smallest (1.06 per cent) upto 18 years of age. Empirical evidence suggests that as much as 28.57 per cent of workers in food and food products (NIC-20&21) and to 36.36 per cent in repair (NIC-39) have been found within the age of 36-40 years. Across different economic activities, all workers in chemicals (NIC-31) and to 23.80 per cent in other manufacturing (NIC-38) are found within the age group of 19-25 years. Also, all workers in basic metal (NIC-38) are seen in the age group of 26-30 years; and to 40 per cent in rubber and plastics (NIC-30) to over 45 years of age. Thus, the finding suggests that a majority of workers in Puri within the manufacturing segment is found within the age group of 36-40 years. Thus, workers in the age group of (i) 19-25 years in Agra; (ii) 26-30 years in Kalpur; and (iii) 36-40 years in Puri are found dominant in unregistered informal manufacturing segment (table III.1).

## **I.2 Non-Manufacturing Segment**

Table III.2 classifies workers by age in unregistered non-manufacturing informal segment. In Agra, the largest number of workers (23.40 per cent) have been found within the age group of 26-30 years, while smallest (6.81 per cent) upto 18 years. This is born out by the fact that 30 per cent of workers from wholesale trade in food and miscellaneous manufacturers (NIC-60); 45 per cent from wholesale trade in all types of machinery and equipments (NIC-63); and to 35 per cent from real estate and business services (NIC-82) belong to the age group of 26-30 years.

Table III.2 : Unregistered Non-Manufacturing Informal Workers by Age : 1999

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Agra							
			Age of workers (in years)							
			Upto 18	19-25	26-30	31-35	36-40	41-45	>45	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	1 (5.00)	8 (40.00)	6 (30.00)	3 (15.00)	2 (10.00)	--	--	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	2 (10.00)	9 (45.00)	3 (15.00)	1 (5.00)	--	5 (25.00)	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	2 (10.00)	4 (20.00)	3 (15.00)	4 (20.00)	1 (5.00)	6 (30.00)	--	20 (100.00)
4.	66	Retail trade in textiles	--	1 (5.00)	5 (25.00)	3 (15.00)	--	6 (30.00)	5 (25.00)	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	2 (10.00)	2 (10.00)	4 (20.00)	1 (5.00)	4 (20.00)	5 (25.00)	2 (10.00)	20 (100.00)
6.	68	Retail trade in others	3 (13.04)	8 (34.78)	7 (30.43)	2 (8.70)	1 (4.35)	--	2 (8.70)	23 (100.00)
7.	69	Restaurants and hotels	2 (10.00)	9 (45.00)	3 (15.00)	1 (5.00)	3 (15.00)	2 (10.00)	--	20 (100.00)
8.	74	Storage and warehousing	--	1 (4.35)	3 (13.04)	4 (17.39)	5 (21.75)	3 (13.04)	7 (30.43)	23 (100.00)
9.	82	Real estate and business services	--	1 (5.00)	7 (35.00)	4 (20.00)	3 (15.00)	2 (10.00)	3 (15.00)	20 (100.00)
10.	96	Personal services	4 (16.67)	4 (16.67)	5 (20.83)	5 (20.83)	--	2 (8.33)	4 (16.67)	24 (100.00)
11.	99	Services not elsewhere classified	2 (8.00)	3 (12.00)	3 (12.00)	4 (14.00)	3 (13.00)	4 (16.00)	6 (24.00)	25 (100.00)
		Total	16 (6.81)	43 (18.29)	55 (23.40)	34 (14.47)	23 (9.79)	30 (12.77)	34 (14.47)	235 (100.00)

Table III.2 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Kanpur							
			Age of workers (in years)							
			Upto 18	19-25	26-30	31-35	36-40	41-45	>45	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	2 (10.00)	2 (10.00)	3 (15.00)	9 (45.00)	--	3 (15.00)	1 (5.00)	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	2 (10.00)	8 (40.00)	5 (25.00)	2 (10.00)	1 (5.00)	2 (10.00)	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	--	6 (30.00)	5 (25.00)	3 (15.00)	1 (5.00)	4 (20.00)	1 (5.00)	20 (100.00)
4.	66	Retail trade in textiles	--	4 (20.00)	6 (30.00)	2 (10.00)	2 (10.00)	5 (25.00)	1 (5.00)	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	--	3 (15.00)	8 (40.00)	3 (15.00)	1 (5.00)	2 (10.00)	3 (15.00)	20 (100.00)
6.	68	Retail trade in others	--	5 (12.19)	9 (21.95)	15 (36.59)	2 (4.88)	8 (19.51)	2 (4.88)	41 (100.00)
7.	69	Restaurants and hotels	1 (5.00)	6 (30.00)	8 (40.00)	3 (15.00)	--	1 (5.00)	1 (5.00)	20 (100.00)
8.	74	Storage and warehousing	1 (5.00)	4 (20.00)	2 (10.00)	3 (15.00)	2 (10.00)	7 (35.00)	1 (5.00)	20 (100.00)
9.	82	Real estate and business services	1 (5.00)	4 (20.00)	8 (40.00)	4 (20.00)	2 (10.00)	--	3 (15.00)	20 (100.00)
10.	96	Personal services	1 (5.00)	2 (10.00)	4 (20.00)	8 (40.00)	2 (10.00)	--	3 (15.00)	20 (100.00)
11.	99	Services not elsewhere classified	--	7 (29.17)	9 (37.51)	2 (8.33)	2 (8.33)	2 (8.33)	2 (8.33)	24 (100.00)
		Total	7 (2.86)	44 (17.95)	70 (28.57)	57 (23.27)	16 (6.53)	33 (13.47)	18 (7.35)	245 (100.00)

Table III.2 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Puri							
			Age of workers (in years)							Total workers
			Upto 18	19-25	26-30	31-35	36-40	41-45	>45	
1.	60	Wholesale trade in food and miscellaneous manufactures	--	--	--	--	--	--	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	--	--	--	--	--	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	1 (4.17)	2 (8.33)	3 (12.50)	6 (25.00)	8 (33.33)	3 (12.50)	1 (4.17)	24 (100.00)
4.	66	Retail trade in textiles	--	1 (11.11)	1 (11.11)	2 (22.22)	--	--	5 (55.56)	9 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	--	--	1 (7.14)	4 (28.57)	4 (28.57)	2 (14.29)	3 (21.43)	14 (100.00)
6.	68	Retail trade in others	2 (8.70)	3 (13.04)	1 (4.35)	3 (13.04)	8 (34.78)	5 (21.74)	1 (4.35)	12 (100.00)
7.	69	Restaurants and hotels	--	4 (33.34)	1 (8.33)	1 (8.33)	4 (33.34)	1 (8.33)	1 (8.33)	23 (100.00)
8.	74	Storage and warehousing	--	--	1 (100.00)	--	--	--	--	1 (100.00)
9.	82	Real estate and business services	--	--	--	--	--	--	--	--
10.	96	Personal services	1 (1.92)	7 (13.46)	10 (19.23)	12 (23.08)	9 (17.31)	2 (3.85)	11 (21.15)	52 (100.00)
11.	99	Services not elsewhere classified	8 (2.95)	28 (10.33)	28 (10.33)	54 (19.93)	55 (20.30)	28 (10.33)	70 (25.83)	271 (100.00)
		Total	12 (2.96)	45 (11.08)	46 (11.33)	82 (20.20)	88 (21.67)	41 (10.10)	92 (22.66)	406 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

Across different non-manufacturing activities, variations have been observed. For example, a largest number of workers (40 per cent) in wholesale trade in food and miscellaneous manufacturing (NIC-60); 34.78 per cent in retail trade in others (NIC-68); and to 45 per cent in restaurants and hotels (NIC-69) have been found within the group of 19-25 years of age. Similarly, largest number of workers (30 per cent each) in retail trade in food and food products, etc. (NIC-65) and retail trade in textiles (NIC-66); and to 25 per cent in retail trade in fuel and other household utilities, etc. (NIC-67) are within the group of 41-45 years of age. Also, largest number of workers (30.43 per cent) in storage and warehousing (NIC-74); and to 24 per cent in services not elsewhere classified (NIC-99) are found over 45 years of age.

In Kanpur, a similar observation, more or less, has also emerged as a majority of workers (28.57 per cent) are found within 26-30 years of age. So as to support such finding, it may be noted that (i) 40 per cent of workers within wholesale trade in all types of machinery and equipment (NIC-63); (ii) 30 per cent within retail trade in textiles (NIC-66); (iii) 40 per cent within retail trade in fuel and other household utilities (NIC-67); (iv) 40 per cent within restaurants and hotels (NIC-69); (v) 40 per cent within real estate and business services (NIC-82); and to 37.51 per cent of workers within services not elsewhere classified (NIC-99) are found belonging to the age group of 26-30 years. Also, 45 per cent of workers in wholesale trade, food, etc. (NIC-60); 36.59 per cent in retail trade in others (NIC-68); and that to 40 per cent in personal services (NIC-96) are found within 31-35 years of age; 30 per cent in retail trade in food and food products (NIC-65) are within the age group 19-25 years; and to 35 per cent of workers in storage and warehousing (NIC-74) are found within the group of 41-45 years of age. The above analysis, thus, implies that the workers within non-manufacturing segment in Kanpur are younger and most of them are found belonging upto 35 years of age.



Such workers, owing to lack of alternate job opportunities, are found engaged within the unregistered non-manufacturing informal segment (table III.2).

In Puri, in sharp contrast to Agra and Kanpur, the unregistered non-manufacturing informal sector is found dominated by the workers over 45 years of age (22.66 per cent). It has primarily been conditioned by employment of workers (55.56 per cent) in retail trade in textiles (NIC-66); and (25.83 per cent) in services not elsewhere classified (NIC-99). It has also been noted that 33.33 per cent of workers in retail trade in food and food products, beverages, tobacco and intoxicants (NIC-65); 34.78 per cent in retail trade in others (NIC-68) are within age group of 36-40 years; while 100 per cent of workers in storage and warehousing (NIC-74) are within the age group of 26-30 years. Thus, relatively older persons are seen employed within the non-manufacturing informal segment in Puri city (table III.2).

We may now examine the age profile of workers in total of manufacturing and non-manufacturing informal segment in all cities. Within the manufacturing segment, a largest number of workers (24.10 per cent) are found within the age group of 26-30 years, while smallest (5.05 per cent) upto 18 years of age. As much as 38.10 per cent of workers in chemicals (NIC-31); 36.73 per cent in paper, printing and allied (NIC-28); 34.88 per cent in electrical machinery (NIC-36); and to 33.33 per cent in basic metals (NIC-33) are found within the age group of 26-30 years.

Also, 26.19 per cent in metal products (NIC-34); 25.00 per cent in leather products (NIC-29); 22.86 per cent of workers in food and food products (NIC-20&21); and to 20.93 per cent of workers in machinery (NIC-35) belong to 19-25 years of age. However, 26.67 per cent of workers in rubber and plastics (NIC-30) and to 28.58 per cent in cotton textiles (NIC-23) are found respectively within 31-35 years and to over 45 years of age. Thus, within the

manufacturing segment workers generally upto 30 years of age have been found predominant in all cities taken together (table III.3).

**Table III.3 : Unregistered Manufacturing and Non-Manufacturing Informal Workers by Age in All Cities: 1999**

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products/ non-manufacturing activities	A. Manufacturing Segment							
			Age of workers (in years)							Total workers
			Upto 18	19-25	26-30	31-35	36-40	41-45	>45	
1.	20&21	Food products	3 (4.29)	16 (22.86)	13 (18.57)	14 (20.00)	11 (15.71)	4 (5.71)	9 (12.86)	70 (100.00)
2.	23	Cotton textiles	1 (2.38)	8 (19.05)	11 (26.19)	1 (2.38)	5 (11.90)	4 (9.52)	12 (28.58)	42 (100.00)
3.	28	Paper, printing and allied	1 (2.05)	8 (16.33)	18 (36.73)	7 (14.29)	4 (8.16)	6 (12.24)	5 (10.20)	49 (100.00)
4.	29	Leather products	2 (4.55)	11 (25.00)	10 (22.73)	6 (13.64)	6 (13.64)	3 (6.80)	6 (13.64)	44 (100.00)
5.	30	Rubber and plastics	2 (4.44)	10 (22.22)	8 (17.78)	12 (26.67)	3 (6.67)	1 (2.22)	9 (20.00)	45 (100.00)
6.	31	Chemicals	2 (4.76)	6 (14.29)	16 (38.10)	6 (14.29)	5 (11.90)	4 (9.52)	3 (7.14)	42 (100.00)
7.	33	Basic metals	3 (6.67)	9 (20.00)	15 (33.33)	6 (13.33)	6 (13.33)	1 (2.22)	5 (11.12)	45 (100.00)
8.	34	Metal products	2 (4.76)	11 (26.19)	10 (23.81)	4 (9.52)	2 (4.76)	6 (14.29)	7 (16.67)	42 (100.00)
9.	35	Machinery	1 (2.33)	9 (27.93)	5 (11.63)	8 (18.60)	8 (18.60)	5 (11.63)	7 (16.28)	43 (100.00)
10.	36	Electrical machinery	1 (2.33)	12 (27.90)	15 (34.88)	3 (6.98)	6 (13.95)	5 (11.63)	1 (2.33)	43 (100.00)
11.	38	Other manufacturing	2 (2.38)	18 (21.43)	17 (20.24)	9 (10.71)	18 (21.43)	11 (13.10)	9 (10.71)	84 (100.00)
12.	39	Repairs	11 (16.94)	10 (15.38)	10 (15.38)	6 (9.23)	11 (16.92)	6 (9.23)	11 (16.92)	65 (100.00)
		Sub-Total	31 (5.05)	128 (20.85)	148 (24.10)	82 (13.36)	85 (13.84)	56 (9.12)	84 (13.68)	614 (100.00)

Table III.3 (contd....)

			B. Non-Manufacturing Segment							
			3	10	9	12	2	3	1	40
13.	60	Wholesale trade in food and miscellaneous manufactures	(7.50)	(25.00)	(22.50)	(30.00)	(5.00)	(7.50)	(2.50)	(100.00)
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	4 (10.00)	17 (42.50)	8 (20.00)	3 (7.50)	1 (2.50)	7 (17.50)	40 (100.00)
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	3 (4.69)	12 (18.75)	11 (17.18)	13 (20.31)	10 (15.63)	13 (20.31)	2 (3.13)	64 (100.00)
16.	66	Retail trade in textiles	--	6 (12.24)	12 (24.49)	7 (14.29)	2 (4.08)	11 (22.45)	11 (22.45)	49 (100.00)
17.	67	Retail trade in fuel and other household utilities and durable	3 (5.75)	4 (7.41)	13 (24.07)	8 (14.81)	9 (16.67)	9 (16.67)	8 (14.81)	54 (100.00)
18.	68	Retail trade in others	5 (5.75)	16 (18.39)	17 (19.54)	20 (22.99)	11 (12.64)	13 (14.94)	5 (5.75)	87 (100.00)
19.	69	Restaurants and hotels	3 (5.77)	19 (36.54)	12 (23.08)	5 (9.62)	7 (13.46)	4 (7.69)	2 (3.84)	52 (100.00)
20.	74	Storage and warehousing	1 (2.27)	5 (11.36)	6 (13.64)	7 (15.91)	7 (15.91)	10 (22.73)	8 (18.18)	44 (100.00)
21.	82	Real estate and business services	1 (2.50)	5 (12.50)	15 (37.50)	8 (20.00)	5 (12.50)	2 (5.00)	4 (10.00)	40 (100.00)
22.	96	Personal services	6 (6.25)	13 (13.54)	19 (19.79)	25 (26.04)	11 (11.46)	4 (4.17)	18 (18.75)	96 (100.00)
23.	99	Services not elsewhere classified	10 (3.13)	38 (11.88)	40 (12.50)	60 (18.75)	60 (18.75)	34 (10.63)	78 (24.36)	320 (100.00)
		Sub-Total	35 (3.95)	132 (14.89)	171 (19.30)	173 (19.53)	127 (14.33)	104 (11.74)	144 (16.26)	886 (100.00)
		Grand-Total	66 (4.40)	260 (17.33)	319 (21.27)	255 (17.00)	212 (14.13)	160 (10.67)	228 (15.20)	1500 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from workers in Agra, Kanpur and Puri cities.

A majority of workers within the non-manufacturing segment is found existing within 26-30 years of age (21.27 per cent). For instance, workers within this age group are found significantly higher (42.50 per cent) in wholesale trade in all types of machinery and

equipment including transport and electrical equipment (NIC-63) and to 37.50 per cent in real estate and business services (NIC-82). It is notable that workers within 19-25 and 41-45 years of age have been found significant only in restaurants and hotels (NIC-69) and in storage and warehousing (NIC-74) respectively. The general finding, thus, tends to suggest that a majority of workers within this segment belongs to 26-30 years of age and, therefore, owing to lack of alternate job opportunity, they are compelled to work in the unregistered non-manufacturing informal segment. Within manufacturing and non-manufacturing segments in all cities, it is discovered that largest workers are within the 26-30 years of age. It clearly indicates the domination of younger generation in the unregistered informal segment (table III.3).

## II. Distribution of Unregistered Informal Sector Workers by Male and Female

### II.1 Manufacturing

Table III.4 distributes unregistered manufacturing informal sector workers by male and female. In Agra, as much as 98.11 per cent of workers are males, while to only 1.89 per cent are female. Employment of male workers varies from 90 per cent in cotton textiles (NIC-23) to 100 per cent in, such activities as, (i) food products (NIC-20&21), (ii) paper, printing and allied (NIC-28), (iii) leather products (NIC-29), (iv) rubber and plastics (NIC-30), (v) chemicals (NIC-31), (vi) metal products (NIC-34), electrical machinery (NIC-36) and in (vii) repairs (NIC-39). On the other hand, female workers are found to be 10 per cent in textiles (NIC-23), 4.35 per cent in basic metals (NIC-33), 4.76 per cent in machinery (NIC-35), and to 3.03 per cent in other manufacturing (NIC-38)

Table III.4 : Unregistered Manufacturing Informal Sector Workers by Male and Female: 1999

Sl. No.	NIC code no.	Manufacturing products	(Workers in Nos.)								
			Agra			Kanpur			Puri		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1.	20&21	Food products	22 (100.00)	--	22 (100.00)	20 (100.00)	--	20 (100.00)	26 (92.86)	2 (7.14)	28 (100.00)
2.	23	Cotton textiles	18 (90.00)	2 (10.00)	20 (100.00)	20 (100.00)	--	20 (100.00)	20 (100.00)	--	2 (100.00)
3.	28	Paper, printing and allied	22 (100.00)	--	22 (100.00)	20 (100.00)	--	20 (100.00)	6 (85.71)	1 (14.29)	7 (100.00)
4.	29	Leather products	20 (100.00)	--	20 (100.00)	24 (100.00)	--	24 (100.00)	--	--	--
5.	30	Rubber and Plastics	20 (100.00)	--	20 (100.00)	20 (100.00)	--	20 (100.00)	5 (100.00)	--	5 (100.00)
6.	31	Chemicals	21 (100.00)	--	21 (100.00)	20 (100.00)	--	20 (100.00)	1 (100.00)	--	1 (100.00)
7.	33	Basic metals	22 (95.65)	1 (4.35)	23 (100.00)	20 (100.00)	--	20 (100.00)	2 (100.00)	--	2 (100.00)
8.	34	Metal products	20 (100.00)	--	20 (100.00)	20 (100.00)	--	20 (100.00)	2 (100.00)	--	2 (100.00)
9.	35	Machinery	20 (95.24)	1 (4.76)	21 (100.00)	20 (100.00)	--	20 (100.00)	2 (100.00)	--	2 (100.00)
10.	36	Electrical machinery	21 (100.00)	--	21 (100.00)	20 (100.00)	--	20 (100.00)	2 (100.00)	--	2 (100.00)
11.	38	Other manufacturing	32 (96.97)	1 (3.03)	33 (100.00)	29 (96.67)	1 (3.33)	30 (100.00)	12 (57.14)	9 (42.86)	21 (100.00)
12.	39	Repairs	22 (100.00)	--	22 (100.00)	21 (100.00)	--	21 (100.00)	22 (100.00)	--	22 (100.00)
		Total	260 (98.11)	5 (1.89)	265 (100.00)	254 (99.61)	1 (0.39)	255 (100.00)	82 (87.23)	12 (12.77)	94 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

A similar finding has also been reinforced more forcefully in context of Kanpur, where, excepting other manufacturing (NIC-38), all workers in all manufacturing activities are found to be male. Male workers in the city as a whole come to 99.61 per cent, while that of female to 0.39 per cent. In Puri, of the total workers, male accounts for 87.23 per cent, while female to



12.77 per cent. Interestingly, cotton textile (NIC-23), rubber and plastics (NIC-30), chemicals (NIC-31), basic metals (NIC-33), metal products (NIC-34), machinery (NIC-35), electrical machinery (NIC-36) and repairs (NIC-39) are found employing cent per cent of male workers. The employment of female workers comes to 42.86 per cent in other manufacturing (NIC-38); 14.29 per cent in paper, printing and allied (NIC-28); and to 7.14 per cent in food and food products (NIC-20&21). It would imply, therefore, that except other manufacturing (NIC-38), the employment of male workers is more significant in all manufacturing economic activities than that of female workers in Puri city.

## **II.2 Non-manufacturing**

Table III.5 classifies male and female workers in various non-manufacturing informal activities. In Agra, 96.60 per cent of workers are male, while rest (3.40 per cent) female. The proportion of male workers varies from about 87 per cent to 100 per cent, while that for female from over 4 per cent to 13 per cent in different economic activities. Non-manufacturing activities employing cent per cent male workers are : wholesale trade in food and miscellaneous manufactures (NIC-60), retail trade in food and food products, etc. (NIC-65), storage and warehousing (NIC-74), real estate and business services (NIC-82) and services not elsewhere classified (NIC-99). Retail trade in others (NIC-68) employed the 86.96 per cent of male workers, while 13.04 per cent of female workers. Personal services employed the lowest of female workers (4.17 per cent). Thus, the domination of male workers has clearly been manifested in the non-manufacturing segment in Agra city (table III.5).

Table III.5 : Unregistered Non-Manufacturing Informal Sector Workers by Male and Female: 1999

Sl. No.	NIC code no.	Manufacturing products	(Workers in Nos.)								
			Agra			Kanpur			Puri		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
1.	60	Wholesale trade in food and miscellaneous manufactures	20 (100.00)	--	20 (100.00)	20 (100.00)	--	20 (100.00)	--	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	19 (95.00)	1 (5.00)	20 (100.00)	20 (100.00)	--	20 (100.00)	--	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	20 (100.00)	--	22 (100.00)	20 (100.00)	--	20 (100.00)	22 (91.67)	2 (8.33)	24 (100.00)
4.	66	Retail trade in textiles	19 (95.00)	1 (5.00)	20 (100.00)	20 (100.00)	--	20 (100.00)	8 (88.89)	1 (11.11)	9 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	19 (95.00)	1 (5.00)	20 (100.00)	20 (100.00)	--	20 (100.00)	12 (85.71)	2 (14.29)	14 (100.00)
6.	68	Retail trade in others	20 (86.96)	3 (13.04)	23 (100.00)	40 (97.56)	1 (2.44)	41 (100.00)	17 (73.91)	6 (26.09)	23 (100.00)
7.	69	Restaurants and hotels	19 (95.00)	1 (5.00)	20 (100.00)	20 (100.00)	--	20 (100.00)	10 (83.33)	2 (16.67)	12 (100.00)
8.	74	Storage and warehousing	23 (100.00)	--	23 (100.00)	20 (100.00)	--	20 (100.00)	1 (100.00)	--	1 (100.00)
9.	82	Real estate and business services	20 (100.00)	--	20 (100.00)	18 (90.00)	2 (10.00)	20 (100.00)	--	--	--
10.	96	Personal services	23 (95.83)	1 (4.17)	24 (100.00)	20 (100.00)	--	20 (100.00)	40 (76.92)	12 (23.08)	52 (100.00)
11.	99	Services not elsewhere classified	25 (100.00)	--	25 (100.00)	22 (91.67)	2 (8.33)	24 (100.00)	255 (94.09)	16 (5.91)	271 (100.00)
		Total	227 (96.60)	8 (3.40)	235 (100.00)	240 (97.96)	5 (2.40)	245 (100.00)	365 (89.90)	41 (10.10)	406 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

A similar finding has also been noted in Kanpur city more strongly. Of the total workers, 97.96 per cent of workers are male, while only 2.04 per cent female. Of the total 11 non-manufacturing, 8 activities have employed 100 per cent of male workers, while in remaining 3 activities, the employment of male workers varied from 90 per cent to about 98 per cent. The employment of female workers in three non-manufacturing economic activities, such as, retail

trade in others (NIC-68), real estate and business services (NIC-82), and personal services (NIC-96) varied from lowest of 2.44 per cent to highest of 10 per cent. It appears that even in Kanpur, the employment of male workers is more significant than that of female workers (table III.5).

The non-manufacturing activities in Puri, employed 89.90 per cent of male workers while to 10.10 per cent of female workers. The employment of male workers varied from lowest of 73.91 per cent in retail trade in others (NIC-68) to highest of 100 per cent in storage and warehousing (NIC-74). As far the employment of female workers, it varied from lowest of 5.91 per cent in services not elsewhere classified (NIC-99) to the highest of 26.09 per cent in retail trade in others (NIC-68). Thus, like Agra and Kanpur cities, in Puri also, the employment of male workers has been found to be relatively more significant and substantial than that of female workers (table III.5).

Taking all cities together, of the total manufacturing workers, 97.07 per cent are male, while rest (2.93 per cent) female. Also, the largest male workers of 100 per cent are found employed in six activities, such as, leather products (NIC-29), rubber and plastics (NIC-30), chemicals (NIC-31), metal products (NIC-34), electrical machinery (NIC-36) and in repairs (NIC-39), while smallest workers of 97.96 per cent has been employed in paper, printing and allied (NIC-28). The largest number of female workers are found employed in other manufacturing (NIC-38) being 13.10 per cent, whereas, that of smallest of 2.04 per cent in paper, printing and allied (NIC-28).

Within the non-manufacturing in all cities, 95.20 per cent of workers are male, while remaining (4.80 per cent) female. Also, the largest number of male workers amounting to 100 per cent are employed in wholesale trade in food and miscellaneous manufactures (NIC-60)

and storage and warehousing (NIC-74), whereas smallest of 86.46 per cent in personal services (NIC-96). The employment of female workers has been found to be highest of 13.54 per cent in personal services (NIC-96), whereas lowest of 2.50 per cent in wholesale trade in all types of machinery and equipments, etc. (NIC-63). The above empirical analysis thus suggests that the employment of male workers is more significant than that of female workers in the unregistered manufacturing and non-manufacturing segments in three cities under consideration (table III.6).

Table III.6 : Unregistered Informal Sector by Male and Female : 1999

Sl. No.	NIC code no.	Products/activities	(Workers in No.)		
			All Cities		
			Male	Female	Total
		<b>A. Manufacturing</b>			
1.	20&21	Food products	68 (97.14)	2 (2.86)	70 (100.00)
2.	23	Cotton textiles	40 (95.24)	2 (4.76)	42 (100.00)
3.	28	Paper, printing and allied	48 (97.96)	1 (2.04)	49 (100.00)
4.	29	Leather products	44 (100.00)	--	44 (100.00)
5.	30	Rubber and Plastics	45 (100.00)	--	45 (100.00)
6.	31	Chemicals	42 (100.00)	--	42 (100.00)
7.	33	Basic metals	44 (97.78)	1 (2.22)	45 (100.00)
8.	34	Metal products	42 (100.0)	--	42 (100.0)
9.	35	Machinery	42 (7.67)	1 (2.33)	43 (100.00)
10.	36	Electrical machinery	43 (100.00)	--	43 (100.00)
11.	38	Other manufacturing	73 (86.90)	11 (13.10)	84 (100.00)
12.	39	Repairs	65 (100.00)	--	65 (100.00)
		Sub-Total	596 (97.07)	18 (2.93)	614 (100.00)

Table III.6 (contd.....)

		<b>B. Non-manufacturing</b>			
13.	60	Wholesale trade in food and miscellaneous manufactures	40 (100.00)	--	40 (100.00)
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	39 (97.50)	1 (2.50)	40 (100.00)
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	62 (96.88)	2 (3.12)	64 (100.00)
16.	66	Retail trade in textiles	47 (95.92)	2 (4.08)	49 (100.00)
17.	67	Retail trade in fuel and other household utilities and durable	51 (94.44)	3 (5.56)	54 (100.00)
18.	68	Retail trade in others	77 (88.51)	10 (11.49)	87 (100.00)
19.	69	Restaurants and hotels	49 (94.23)	3 (5.77)	52 (100.00)
20.	74	Storage and warehousing	44 (100.00)	--	44 (100.00)
21.	82	Real estate and business services	38 (95.00)	2 (5.00)	40 (100.00)
22.	96	Personal services	83 (86.46)	13 (5.62)	93 (100.00)
23.	99	Services not elsewhere classified	302 (94.38)	18 (5.62)	320 (100.00)
		Sub-Total	832 (93.91)	54 (6.09)	886 (100.00)
		Grand Total	1428 (95.20)	72 (4.80)	1500 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from workers in Agra, Kanpur and Puri cities.

### III. Workers by Religion

#### III.1 Manufacturing

We may now examine the workers by religion in unregistered manufacturing informal sector. The distribution of workers has been done by different religions, such as, (i) hindu, (ii)



muslim, (iii) sikh, (iv) christian, and (v) others. Table III.7 provides the information on these aspects in case of manufacturing activities.

In Agra, a majority of workers has come from hindu community (66.42 per cent) followed by muslim (29.06 per cent). The workers from other religions are, however, found to be of marginal significance being to 2.26 per cent each from sikh and other religion. Across different manufacturing activities, a largest number of unregistered informal sector workers in food and food products (NIC-20&21) is from hindu (100 per cent). In sharp contrast to this, in basic metals (NIC-33) a smallest number of such workers (30.45 per cent) is from hindu community. It suggests that basic metal (NIC-33) is the low absorber of hindu workers, which has employed the largest number of workers from muslim community (69.57 per cent). However, paper, printing and allied (NIC-28) has employed the smallest number of workers (9.10 per cent) from the muslim community.

A similar pattern has also been witnessed in the context of Kanpur as well. Over three-fourths of workers are from hindu, while little over one-fifth to muslim religion. Other religions, in this respect, are, however, found to be of negligible importance as sikh has supplied the 0.78 per cent and other religion to 0.39 per cent of unregistered informal sector workers. Food products (NIC-20&21) has employed the cent per cent of workers from hindu religion, while repairs (NIC-39) has employed the lowest (57.14 per cent). Also, a largest number of workers in paper, printing and allied (NIC-28) have come from hindu religion (90 per cent), whereas, lowest in chemicals (NIC-31) has come from muslim community (15 per cent).

Table III.7 : Distribution of Unregistered Manufacturing Informal Workers by Religion : 1999

Sl. No.	NIC code no	Manufacturing products	(Workers in No.)					
			Agra					
			Religion					Total workers
			Hindu	Muslim	Sikh	Christian	Any other	
1.	20&21	Food products	22 (100.00)	--	--	--	--	22 (100.00)
2.	23	Cotton textiles	11 (55.00)	5 (25.00)	1 (5.00)	--	--	20 (100.00)
3.	28	Paper, printing and allied	20 (90.90)	2 (9.10)	--	--	--	22 (100.00)
4.	29	Leather products	13 (65.00)	6 (30.00)	1 (5.00)	--	--	20 (100.00)
5.	30	Rubber and plastics	12 (60.00)	6 (30.00)	2 (10.00)	--	--	20 (100.00)
6.	31	Chemicals	16 (76.19)	4 (19.05)	--	--	1 (4.76)	21 (100.00)
7.	33	Basic metals	7 (30.43)	16 (69.57)	--	--	--	23 (100.00)
8.	34	Metal products	13 (65.00)	6 (30.00)	--	--	1 (5.00)	20 (100.00)
9.	35	Machinery	13 (61.90)	7 (33.34)	1 (4.76)	--	--	21 (100.00)
10.	36	Electrical machinery	13 (61.90)	7 (33.34)	1 (4.76)	--	--	21 (100.00)
11.	38	Other manufacturing	21 (63.64)	11 (33.33)	--	--	1 (3.03)	33 (100.00)
12.	39	Repairs	15 (68.18)	7 (31.82)	--	--	--	22 (100.00)
		<b>Total</b>	176 (66.42)	77 (29.06)	6 (2.26)	--	6 (2.26)	265 (100.00)

Table III.7 (contd....)

Sl. No.	NIC code no	Manufacturing products	(Workers in No.)					
			Kanpur					
			Religion					Total workers
			Hindu	Muslim	Sikh	Christian	Any other	
1.	20&21	Food products	20 (100.00)	--	--	--	--	20 (100.00)
2.	23	Cotton textiles	19 (95.00)	--	--	--	1 (5.00)	20 (100.00)
3.	28	Paper, printing and allied	18 (90.00)	2 (10.00)	--	--	--	20 (100.00)
4.	29	Leather products	15 (62.50)	8 (33.33)	1 (4.17)	--	--	24 (100.00)
5.	30	Rubber and plastics	16 (80.00)	4 (20.00)	--	--	--	20 (100.00)
6.	31	Chemicals	17 (85.00)	3 (15.00)	--	--	--	20 (100.00)
7.	33	Basic metals	15 (75.00)	5 (25.00)	--	--	--	20 (100.00)
8.	34	Metal products	14 (70.00)	6 (30.00)	--	--	--	20 (100.00)
9.	35	Machinery	13 (65.00)	6 (30.00)	1 (5.00)	--	--	20 (100.00)
10.	36	Electrical machinery	13 (65.00)	7 (35.00)	--	--	--	20 (100.00)
11.	38	Other manufacturing	23 (76.67)	7 (23.33)	--	--	--	30 (100.00)
12.	39	Repairs	12 (57.14)	9 (42.86)	--	--	--	21 (100.00)
		Total	195 (76.48)	57 (22.35)	2 (0.78)	--	1 (0.39)	255 (100.00)

Table III.7 (contd....)

Sl. No.	NIC code no	Manufacturing products	(Workers in No.)					
			Puri					
			Religion					Total workers
			Hindu	Muslim	Sikh	Christian	Any other	
1.	20&21	Food products	25 (89.29)	3 (10.71)	--	--	--	28 (100.00)
2.	23	Cotton textiles	2 (100.00)	--	--	--	--	2 (100.00)
3.	28	Paper, printing and allied	7 (100.00)	--	--	--	--	7 (100.00)
4.	29	Leather products	--	--	--	--	--	--
5.	30	Rubber and plastics	4 (80.00)	1 (20.00)	--	--	--	5 (100.00)
6.	31	Chemicals	1 (100.00)	--	--	--	--	1 (100.00)
7.	33	Basic metals	2 (100.00)	--	--	--	--	2 (100.00)
8.	34	Metal products	2 (100.00)	--	--	--	--	2 (100.00)
9.	35	Machinery	2 (100.00)	--	--	--	--	2 (100.00)
10.	36	Electrical machinery	2 (100.00)	--	--	--	--	2 (100.00)
11.	38	Other manufacturing	21 (100.00)	--	--	--	--	21 (100.00)
12.	39	Repairs	21 (95.45)	1 (4.55)	--	--	--	22 (100.00)
		Total	89 (94.68)	5 (5.32)	--	--	--	94 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

In Puri, of the total workers, 94.68 per cent are from hindu, while the rest (5.32 per cent) is from muslim religion. Across the different economic activities, out of 12, eight activities have employed the cent per cent of workers from hindu community. Rubber and plastics (NIC-30) employed the lowest of 80 per cent of workers from the hindu community. The proportion of muslim workers is found highest in rubber and plastics (NIC-30) of 20 per cent, whereas, lowest in repairs (NIC-39) of 4.55 per cent. It, thus, suggests that hindu community has supplied the workers proportionately more than that of other communities. Among the three cities under consideration (table III.7), workers from hindu community are found largest in Puri (94.68 per cent), while smallest in Agra (66.42 per cent). Also, muslim workers are found to be largest in Agra (29.06 per cent), while smallest in Puri (5.32 per cent).

### **III.2 Non-Manufacturing**

The distribution of informal sector workers by religion in non-manufacturing activities have been portrayed in table III.8. In Agra, workers from the hindu community are found significantly higher (81.28 per cent) than that from muslims (15.32 per cent), sikh (1.70 per cent) and to others (1.70 per cent). Across different economic activities, the largest number of hindu workers has been found in wholesale trade in all types of machinery and equipment, etc. (NIC-63), restaurants and hotels (NIC-69) each economic activity has accounted for 95 per cent of the total activity-wise employment. Hindu workers are, however, found lowest in personal services (NIC-96), which comes to 62.50 per cent (table III.8).



Table III.8 : Distribution of Unregistered Non-Manufacturing Informal Workers by Religion :  
1999

Sl. No.	NIC code no	Non-manufacturing activities	(Workers in No.)					
			Agra					
			Religion					Total workers
			Hindu	Muslim	Sikh	Christian	Any other	
1.	60	Wholesale trade in food and miscellaneous manufactures	16 (80.00)	2 (10.00)	--	--	2 (10.00)	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	19 (95.00)	1 (5.00)	--	--	--	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	18 (90.00)	2 (10.00)	--	--	--	22 (100.00)
4.	66	Retail trade in textiles	17 (85.00)	1 (5.00)	1 (5.00)	--	1 (5.00)	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	17 (85.00)	2 (10.00)	1 (5.00)	--	--	20 (100.00)
6.	68	Retail trade in others	18 (78.26)	3 (13.04)	2 (8.70)	--	--	23 (100.00)
7.	69	Restaurants and hotels	19 (96.00)	1 (5.00)	--	--	--	20 (100.00)
8.	74	Storage and warehousing	19 (82.61)	4 (17.39)	--	--	--	23 (100.00)
9.	82	Real estate and business services	17 (85.00)	2 (100.00)	--	--	1 (5.00)	20 (100.00)
10.	96	Personal services	15 (62.50)	9 (37.50)	--	--	--	24 (100.00)
11.	99	Services not elsewhere classified	16 (64.00)	9 (36.00)	--	--	--	25 (100.00)
		Total	191 (81.28)	36 (15.32)	4 (1.70)	--	4 (1.70)	235 (100.00)

Table III.8 (contd....)

Sl. No.	NIC code no	Non-manufacturing activities	(Workers in No.)					
			Kanpur					
			Religion					
			Hindu	Muslim	Sikh	Christian	Any other	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	16 (80.00)	4 (20.00)	--	--	--	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	19 (95.00)	1 (5.00)	--	--	--	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	17 (85.00)	3 (15.00)	--	--	--	20 (100.00)
4.	66	Retail trade in textiles	18 (90.00)	1 (5.00)	--	--	1 (5.00)	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	20 (100.00)	--	--	--	--	20 (100.00)
6.	68	Retail trade in others	38 (92.68)	3 (7.32)	--	--	--	41 (100.00)
7.	69	Restaurants and hotels	19 (95.00)	1 (5.00)	--	--	--	20 (100.00)
8.	74	Storage and warehousing	15 (75.00)	4 (20.00)	1 (5.00)	--	--	20 (100.00)
9.	82	Real estate and business services	18 (90.00)	1 (5.00)	1 (5.00)	--	--	20 (100.00)
10.	96	Personal services	12 (60.00)	8 (40.00)	--	--	--	20 (100.00)
11.	99	Services not elsewhere classified	15 (62.50)	8 (33.33)	1 (4.17)	--	--	24 (100.00)
		Total	207 (84.49)	34 (13.88)	3 (1.22)	--	1 (0.41)	245 (100.00)

Table III.8 (contd....)

Sl. No.	NIC code no	Non-manufacturing activities	(Workers in No.)					
			Puri					
			Religion					
			Hindu	Muslim	Sikh	Christian	Any other	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	--	--	--	--	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	--	--	--	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	24 (100.00)	--	--	--	--	24 (100.00)
4.	66	Retail trade in textiles	8 (88.88)	1 (11.12)	--	--	--	9 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	13 (92.86)	1 (7.14)	--	--	--	14 (100.00)
6.	68	Retail trade in others	23 (100.00)	--	--	--	--	23 (100.00)
7.	69	Restaurants and hotels	12 (100.00)	--	--	--	--	12 (100.00)
8.	74	Storage and warehousing	1 (100.00)	--	--	--	--	1 (100.00)
9.	82	Real estate and business services	--	--	--	--	--	--
10.	96	Personal services	49 (94.23)	3 (5.77)	--	--	--	52 (100.00)
11.	99	Services not elsewhere classified	269 (99.26)	2 (0.74)	--	--	--	271 (100.00)
		Total	399 (98.28)	7 (1.72)	--	--	--	406 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

In Kanpur, workers from hindu community come to 84.49 per cent and from other religion to 0.41 per cent. Thus, hindu workers are the largest, while that from other religion the smallest. Retail trade in fuel and other household utilities and durable (NIC-67) has employed the largest number of hindu workers (100 per cent), while personal services (NIC-96)

the smallest (60 per cent). The decline of hindu workers in personal services (NIC-96) is seen compensated by the increase by muslim workers. Consequently, personal services (NIC-96) has employed the largest muslim workers of 40 per cent. Such economic activities as, wholesale trade in all types of machinery and equipments (NIC-63), retail trade in textiles (NIC-66), restaurants and hotels (NIC-69) and real estate in business services (NIC-82) have employed the lowest number of muslim workers being to 5 per cent in each activities. Alike Agra, the finding in case of Kanpur also suggests the proportionately a high employment of hindu workers than that from rest of communities (table III.8).

In Puri, hindu workers account for 98.28 per cent while that of muslim workers to 1.72 per cent. Across different unregistered informal economic activities, retail trade in food and food products, etc. (NIC-65), retail trade in others (NIC-68), restaurants and hotels (NIC-69), and storage and warehousing (NIC-74) employed the cent per cent of hindu workers, whereas, retail trade in textiles (NIC-66) employed 88.88 per cent of hindu workers. It indicates, therefore, the dominance of hindu workers in the non-manufacturing segment. It is significant to note that in Puri hindu workers are the largest than that in remaining cities. Also, Agra stood at bottom as a supplier of hindu workers as compared with Puri and Kanpur (table III.8).

Table III.9 distributes the workers by religion in manufacturing and non-manufacturing segments in all cities taken together. Within the manufacturing segment, hindu workers come to 74.92 per cent, muslim 22.64 per cent, sikh 1.30 per cent and from others to 1.14 per cent. At disaggregated product level, hindu workers are the largest of 95.71 per cent in food and food products (NIC-20&21), whereas, smallest of 53.33 per cent in basic metals (NIC-33). It influences the absorption of workers from muslim community, which is found smallest of 4.29 per cent in food and food products (NIC-20&21), whereas, largest of 46.67 per cent in basic metals (NIC-33).

Table III.9 : Distribution of Unregistered Informal Sector Workers by Religion : 1999

Sl. No.	NIC code no	Manufacturing products/non-manufacturing activities	(Workers in No.)					
			All cities					
			Religion					Total workers
			Hindu	Muslim	Sikh	Christian	Any other	
		<b>A. Manufacturing</b>						
1.	20&21	Food products	67 (95.71)	3 (4.29)	--	--	--	70 (100.00)
2.	23	Cotton textiles	32 (76.19)	5 (11.90)	1 (2.38)	--	4 (9.53)	42 (100.00)
3.	28	Paper, printing and allied	45 (91.84)	4 (8.16)	--	--	--	49 (100.00)
4.	29	Leather products	28 (63.84)	14 (31.81)	2 (4.55)	--	--	44 (100.00)
5.	30	Rubber and plastics	32 (71.11)	11 (24.44)	2 (4.45)	--	--	45 (100.00)
6.	31	Chemicals	34 (80.95)	7 (16.67)	--	--	1 (2.38)	42 (100.00)
7.	33	Basic metals	24 (53.33)	21 (46.67)	--	--	--	45 (100.00)
8.	34	Metal products	29 (69.05)	12 (28.57)	--	--	1 (2.38)	42 (100.00)
9.	35	Machinery	28 (65.12)	13 (20.23)	2 (4.65)	--	--	43 (100.00)
10.	36	Electrical machinery	28 (65.12)	14 (32.55)	1 (2.33)	--	--	43 (100.00)
11.	38	Other manufacturing	65 (77.38)	18 (21.43)	--	--	1 (1.19)	84 (100.00)
12.	39	Repairs	48 (73.85)	17 (26.15)	--	--	--	65 (100.00)
		<b>Sub-Total</b>	460 (74.92)	139 (22.64)	8 (1.30)	--	7 (1.14)	614 (100.00)



Table III.9 (contd....)

		B. Non-Manufacturing						
13.	60	Wholesale trade in food and miscellaneous manufactures	32 (80.00)	6 (15.00)	--	--	2 (5.00)	40 (100.00)
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	38 (95.00)	2 (5.00)	--	--	--	40 (10.00)
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	59 (92.19)	5 (7.81)	--	--	--	64 (100.00)
16.	66	Retail trade in textiles	43 (87.76)	3 (6.12)	1 (2.04)	--	2 (4.08)	49 (100.00)
17.	67	Retail trade in fuel and other household utilities and durable	50 (92.59)	3 (5.56)	1 (1.85)	--	--	54 (100.00)
18.	68	Retail trade in others	79 (90.80)	6 (6.90)	2 (2.30)	--	--	87 (100.00)
19.	69	Restaurants and hotels	50 (96.15)	2 (3.85)	--	--	--	52 (100.00)
20.	74	Storage and warehousing	35 (79.55)	8 (18.18)	1 (2.27)	--	--	44 (100.00)
21.	82	Real estate and business services	35 (87.50)	3 (7.50)	1 (2.50)	--	1 (2.50)	40 (100.00)
22.	96	Personal services	76 (79.17)	20 (20.83)	--	--	--	96 (100.00)
23.	99	Services not elsewhere classified	300 (93.75)	19 (5.94)	1 (0.31)	--	--	320 (100.00)
		Sub-Total	797 (89.96)	77 (8.69)	7 (0.79)	--	5 (0.56)	886 (100.00)
		Grand-Total	1257 (83.80)	216 (14.40)	15 (1.00)	--	12 (0.80)	1500 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

Within the non-manufacturing, hindu workers account for 89.96 per cent, muslim to 8.69 per cent, sikh to 0.79 per cent and others to 0.56 per cent. It shows the predominance of hindu workers. Across different unregistered informal economic activities, hindu workers have been found to be highest in restaurants and hotels (96.15 per cent), whereas, lowest in personal services (79.17 per cent). Consequently, workers from the muslim community is found highest in personal services (20.83 per cent), whereas, lowest in restaurants and hotels

(3.85 per cent). It appears that higher proportion of workers within the hindu community is seen accompanied by lower proportion of workers within the muslim community and vice-versa. In all cities and in the total of unregistered informal sector (manufacturing and non-manufacturing), it is discovered that 83.80 per cent of workers are from hindu, 14.40 per cent from muslim, 1 per cent from sikh and to 0.80 per cent from other communities. Thus, unregistered informal sector can mainly be characterised by the predominance of hindu workers for the cities under reference (table III.9).

#### **IV. Unregistered Informal Sector Workers by Caste**

##### **IV.1 Manufacturing**

As workers in the informal sector are mainly hindus, it would be worthwhile to examine the caste structure of workers. Caste has been divided mainly into two categories, i.e. (i) SC/ST and (ii) others. Other caste has further been bifurcated into four sub-categories, viz. (a) brahmin, (b) kshetriya, (c) vaishya, and (d) others. The distribution of informal sector workers for unregistered manufacturing informal segment has been portrayed in table III.10.

In Agra, unregistered manufacturing segment is found dominated by workers from other castes (47.55 per cent), which includes : (i) yadavas, (ii) pal, (iii) kayastha, (iv) kushwaha, etc. Next, in order of importance, comes the SC/ST caste, of which 26.03 per cent of workers are found employed. Vaishya community supplied the 10.94 per cent of workers to the informal manufacturing segment. Workers from kshetriya come to 10.57 per cent and from brahmin to 4.91 per cent. Thus, there seems to be a break through from SC/ST as working class to other caste, such as, kayastha, pal, yadavas, kushwaha, etc. It is notable that, excepting the leather products (NIC-29) and machinery (NIC-35), in remaining 10 manufacturing activities only other

caste workers (kayastha, pal, yadavas, kushwaha, etc.) are employed overwhelmingly in the unregistered manufacturing informal segment (table III.10).

Table III.10 : Distribution of Unregistered Manufacturing Informal Workers by Caste : 1999

Sl. No.	NIC code no	Manufacturing products	(Workers in No.)					
			Agra					
			Caste					
			SC/ST	Brahmin	Kshetriya	Vaishya	Any other	Total workers
1.	20&21	Food products	4 (18.18)	2 (9.09)	6 (27.27)	1 (4.55)	9 (40.91)	22 (100.00)
2.	23	Cotton textiles	3 (15.00)	--	1 (5.00)	4 (20.00)	12 (60.00)	20 (100.00)
3.	28	Paper, printing and allied	6 (27.27)	1 (4.55)	4 (18.18)	2 (9.09)	9 (40.91)	22 (100.00)
4.	29	Leather products	12 (60.00)	--	--	--	8 (40.00)	20 (100.00)
5.	30	Rubber and plastics	2 (10.00)	--	2 (10.00)	7 (35.00)	9 (45.00)	20 (100.00)
6.	31	Chemicals	3 (14.29)	1 (4.76)	3 (14.29)	4 (19.05)	10 (47.61)	21 (100.00)
7.	33	Basic metals	4 (17.39)	2 (8.69)	1 (4.35)	1 (4.35)	15 (65.22)	23 (100.00)
8.	34	Metal products	5 (25.00)	--	1 (5.00)	5 (25.00)	9 (45.00)	20 (100.00)
9.	35	Machinery	8 (38.09)	3 (14.29)	2 (9.53)	--	3 (38.09)	21 (100.00)
10.	36	Electrical machinery	6 (28.57)	2 (9.52)	4 (19.05)	1 (4.76)	3 (38.10)	21 (100.00)
11.	38	Other manufacturing	10 (30.30)	--	2 (6.06)	2 (6.06)	19 (57.58)	33 (100.00)
12.	39	Repairs	6 (27.27)	2 (9.09)	2 (9.09)	2 (9.09)	10 (45.46)	22 (100.00)
		Total	69 (26.03)	13 (4.91)	28 (10.57)	29 (10.94)	126 (47.55)	265 (100.00)

Table III.10 (contd....)

Sl. No.	NIC code no	Manufacturing products	(Workers in No.)					
			Kanpur					
			Caste					
			SC/ST	Brahmin	Kshetriya	Vaishya	Any other	Total workers
1.	20&21	Food products	9 (45.00)	3 (15.00)	2 (10.00)	4 (20.00)	2 (10.00)	20 (100.00)
2.	23	Cotton textiles	8 (40.00)	3 (15.00)	1 (5.00)	6 (30.00)	2 (10.00)	20 (100.00)
3.	28	Paper, printing and allied	5 (25.00)	5 (25.00)	1 (5.00)	5 (25.00)	5 (25.00)	20 (100.00)
4.	29	Leather products	9 (37.50)	3 (12.50)	2 (8.33)	1 (4.17)	9 (37.50)	24 (100.00)
5.	30	Rubber and plastics	8 (40.00)	2 (10.00)	2 (10.00)	5 (25.00)	3 (15.00)	20 (100.00)
6.	31	Chemicals	8 (40.00)	2 (10.00)	1 (5.00)	6 (30.00)	3 (15.00)	20 (100.00)
7.	33	Basic metals	13 (65.00)	--	--	1 (5.00)	6 (30.00)	20 (100.00)
8.	34	Metal products	5 (25.00)	2 (10.00)	2 (10.00)	4 (20.00)	7 (35.00)	20 (100.00)
9.	35	Machinery	5 (25.00)	4 (20.00)	2 (10.00)	1 (5.00)	8 (40.00)	20 (100.00)
10.	36	Electrical machinery	6 (30.00)	5 (25.00)	--	3 (15.00)	6 (30.00)	20 (100.00)
11.	38	Other manufacturing	16 (53.34)	3 (10.00)	1 (3.33)	--	10 (33.33)	30 (100.00)
12.	39	Repairs	10 (47.62)	1 (4.76)	2 (9.52)	--	8 (38.10)	21 (100.00)
		Total	102 (40.00)	32 (12.55)	16 (6.27)	36 (14.12)	69 (27.06)	255 (100.00)

Table III.10 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Puri					
			Caste					
			SC/ST	Brahmin	Kshetriya	Vaishya	Any other	Total workers
1.	20&21	Food products	20 (71.43)	2 (7.14)	--	--	6 (21.43)	28 (100.00)
2.	23	Cotton textiles	2 (100.00)	--	--	--	--	2 (100.00)
3.	28	Paper, printing and allied	7 (100.00)	--	--	--	--	7 (100.00)
4.	29	Leather products	--	--	--	--	--	--
5.	30	Rubber and plastics	3 (60.00)	--	--	--	2 (40.00)	5 (100.00)
6.	31	Chemicals	--	--	--	--	1 (100.00)	1 (100.00)
7.	33	Basic metals	--	2 (100.00)	--	--	--	2 (100.00)
8.	34	Metal products	2 (100.00)	--	--	--	--	2 (100.00)
9.	35	Machinery	2 (100.00)	--	--	--	--	2 (100.00)
10.	36	Electrical machinery	1 (50.00)	--	1 (50.00)	--	--	2 (100.00)
11.	38	Other manufacturing	12 (57.14)	4 (19.05)	1 (4.76)	--	4 (19.05)	21 (100.00)
12.	39	Repairs	20 (90.91)	--	--	--	2 (9.09)	22 (100.00)
		Total	69 (73.41)	8 (8.51)	2 (2.13)	--	15 (15.95)	94 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

In Kanpur, however, finding is entirely different. SC/ST supplied the workers to the extent of 40 per cent, other caste to 27.06 per cent, vaishya to 14.12 per cent, brahmin to 12.55 per cent and kshetriya to 6.27 per cent, of the total unregistered manufacturing sector workers. It may be noted that in 7 out of 12 manufacturing activities, [i.e. (i) food and food products (NIC-20&21), cotton textiles (NIC-23), rubber and plastics (NIC-30), chemicals (NIC-



31), basic metal (NIC-33), other manufacturing (NIC-38) and repairs (NIC-39)], the workers from SC/ST have been found considerably higher than that from rest of castes. In machinery (NIC-35), the workers from other castes (pal, yadavas, kayastha, kushwaha, etc.) have been observed to be more significant than the workers from rest of the castes. It thus, suggests that traditional working class community is still found dominant in Kanpur city (table III.10).

In Puri, workers from SC/ST have been found predominant being to 73.41 per cent. Workers from other castes (pal, yadavas, kayastha, etc.) are found second in order of importance being to 15.95 per cent, from brahmin to 8.51 per cent and from kshetriya to 2.13 per cent, of the total manufacturing workers. Across different economic activities, out of 12, in 8 unregistered informal economic activities, workers from SC/ST have been found significantly higher than that from rest of castes. However, workers from brahmin caste is found more significant in basic metals (NIC-33) and that from other caste (pal, yadav and kayastha) in chemicals (NIC-31) being cent per cent in each cases. The overall finding thus indicates that manufacturing unregistered component of informal sector is the main absorber of SC/ST workers (table III.10).

#### **IV.2 Non-Manufacturing**

Table III.11 exhibits caste-wise distribution of workers in unregistered informal non-manufacturing segment. In Agra, like manufacturing segment, the other caste workers are found considerably higher being to 44.27 per cent. Workers from SC/ST come to 18.72 per cent and that from brahmin to 6.38 per cent, of the total workers employed in non-manufacturing informal segment. Across different non-manufacturing activities, the workers from other castes (pal, kayastha, yadava, kushwaha, etc.) are found considerably higher in 8,

out of 11 non-manufacturing activities. Workers from vaishya are found higher in retail trade in textiles (NIC-66) and in retail trade in fuel and other household utilities and durables (NIC-67) being 40 per cent in each case respectively. Workers from kshetriya caste is found proportionately higher (40 per cent) in real estate and business services (NIC-82). It would, therefore, imply that workers from other caste are of considerable importance in so far as unregistered non-manufacturing informal segment in Agra is concerned (table III.11).

Table III.11 : Distribution of Unregistered Non-Manufacturing Informal Workers by Caste :  
1999

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Agra					
			Caste					Total workers
			SC/ST	Brahmin	Kshetriya	Vaishya	Any other	
1.	60	Wholesale trade in food and miscellaneous manufactures	4 (20.00)	1 (5.00)	3 (15.00)	3 (15.00)	9 (45.00)	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	4 (20.00)	4 (20.00)	3 (15.00)	3 (15.00)	6 (30.00)	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	2 (10.00)	2 (10.00)	2 (10.00)	4 (20.00)	10 (50.00)	22 (100.00)
4.	66	Retail trade in textiles	3 (15.00)	--	2 (10.00)	8 (40.00)	7 (35.00)	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	2 (10.00)	1 (5.00)	3 (15.00)	8 (40.00)	6 (30.00)	20 (100.00)
6.	68	Retail trade in others	5 (21.74)	2 (8.70)	5 (21.74)	2 (8.70)	9 (39.12)	23 (100.00)
7.	69	Restaurants and hotels	5 (25.00)	3 (15.00)	5 (25.00)	1 (5.00)	6 (30.00)	20 (100.00)
8.	74	Storage and warehousing	5 (21.74)	1 (4.35)	1 (4.35)	6 (26.09)	10 (43.47)	23 (100.00)
9.	82	Real estate and business services	2 (10.00)	1 (5.00)	8 (40.00)	2 (10.00)	7 (35.00)	20 (100.00)
10.	96	Personal services	7 (29.17)	--	1 (4.17)	--	16 (66.66)	24 (100.00)
11.	99	Services not elsewhere classified	5 (20.00)	--	1 (4.00)	1 (4.00)	18 (72.00)	25 (100.00)
		Total	44 (18.72)	15 (6.38)	34 (14.47)	38 (16.16)	104 (44.27)	235 (100.00)

Table III.11 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Kanpur					
			Caste					Total workers
			SC/ST	Brahmin	Kshetriya	Vaishya	Any other	
1.	60	Wholesale trade in food and miscellaneous manufactures	7 (35.00)	2 (10.00)	4 (20.00)	2 (10.00)	5 (25.00)	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	7 (35.00)	1 (5.00)	4 (20.00)	4 (20.00)	4 (20.00)	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	8 (40.00)	3 (15.00)	3 (15.00)	4 (20.00)	2 (10.00)	20 (100.00)
4.	66	Retail trade in textiles	7 (35.00)	5 (25.00)	--	5 (25.00)	3 (15.00)	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	6 (30.00)	2 (10.00)	4 (20.00)	7 (35.00)	1 (5.00)	20 (100.00)
6.	68	Retail trade in others	15 (36.59)	2 (4.88)	6 (14.63)	10 (24.39)	8 (19.51)	41 (100.00)
7.	69	Restaurants and hotels	7 (35.00)	4 (20.00)	7 (35.00)	1 (5.00)	1 (5.00)	20 (100.00)
8.	74	Storage and warehousing	6 (30.00)	1 (5.00)	1 (5.00)	1 (5.00)	5 (25.00)	20 (100.00)
9.	82	Real estate and business services	4 (20.00)	7 (35.00)	4 (20.00)	1 (5.00)	4 (20.00)	20 (100.00)
10.	96	Personal services	13 (65.00)	--	--	--	7 (35.00)	20 (100.00)
11.	99	Services not elsewhere classified	14 (58.33)	1 (4.17)	--	--	9 (37.50)	24 (100.00)
		Total	100 (40.82)	28 (11.43)	33 (13.47)	35 (14.28)	49 (20.00)	245 (100.00)

Table III.11 (contd....)

(Workers in No.)								
Sl. No.	NIC code no	Non-manufacturing activities	Puri					
			Caste					
			SC/ST	Brahmin	Kshetriya	Vaishya	Any other	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	--	--	--	--	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	--	--	--	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	21 (87.50)	1 (4.17)	--	--	2 (8.33)	24 (100.00)
4.	66	Retail trade in textiles	6 (66.67)	--	--	1 (11.11)	2 (22.22)	9 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	11 (78.58)	1 (7.14)	1 (7.14)	--	1 (7.14)	14 (100.00)
6.	68	Retail trade in others	21 (91.30)	2 (8.70)	--	--	--	23 (100.00)
7.	69	Restaurants and hotels	9 (75.00)	1 (8.33)	--	--	2 (16.67)	12 (100.00)
8.	74	Storage and warehousing	1 (100.00)	--	--	--	--	1 (100.00)
9.	82	Real estate and business services	--	--	--	--	--	--
10.	96	Personal services	44 (84.62)	2 (3.85)	--	--	6 (11.53)	52 (100.00)
11.	99	Services not elsewhere classified	262 (96.67)	5 (1.85)	--	--	4 (1.48)	271 (100.00)
		Total	375 (92.36)	12 (2.96)	1 (0.25)	1 (0.25)	17 (4.18)	406 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

In Kanpur, workers from SC/ST account for 40.82 per cent, other caste to 20 per cent, vaishya to 14.28 per cent, kshetriya to 13.47 per cent and from brahmin to 11.43 per cent, of the total unregistered non-manufacturing informal sector workers of the city. It implies the considerable significance of SC/ST workers in the operation of non-manufacturing sector. It is notable that across different activities, SC/ST workers are found higher considerably in 9 non-

manufacturing activities. However, in real estate and business services (NIC-82) brahmin workers and in retail trade in fuel and other household utilities and durables (NIC-67) vaishya workers have been found more significant and that each has accounted 35 per cent of workers. Thus, a majority of SC/ST workers is found predominant in unregistered non-manufacturing informal economic activities in Kanpur (table III.11).

Such a finding has also been reinforced in case of Puri as well. Of the total unregistered non-manufacturing informal sector workers, 92.36 per cent are from SC/ST. Other caste accounts for 4.18 per cent, brahmin to 2.96 per cent and from kshetriya and vaishya to 0.25 per cent each respectively. Such a finding has also been reinforced in all non-manufacturing economic activities. Thus, SC/ST workers are found considerably larger than workers from remaining castes. The above analysis, therefore, underlines the significance of workers from other caste in Agra, while SC/ST workers in Kanpur and Puri for the smooth functioning of unregistered non-manufacturing informal sector activities (table III.11).

We may now examine the employment structure of total unregistered informal sector workers (manufacturing and non-manufacturing) in all cities together. This has been portrayed in table III.12. A close examination of table III.12 suggests that a majority of workers in manufacturing segment has originated from SC/ST accounting for 39.09 per cent, of the total manufacturing workers. This has been due to the higher concentration of employment of SC/ST workers in such activities as food and food products (NIC-20&21), paper, printing and allied (NIC-28) leather products (NIC-29), other manufacturing (NIC-38) and repairs (NIC-39).

As far the workers in non-manufacturing segment, these have been originated from SC/ST and are found largest in 9 out of 11 non-manufacturing activities. However, workers from other caste are found considerably higher only in wholesale trade in food and



miscellaneous manufacture (NIC-60), while that from kshetriya in real estate and business services (NIC-82), which individually has accounted for 35 per cent and to 30 per cent of unregistered non-manufacturing informal sector workers. Thus, SC/ST workers have emerged as of crucial importance in non-manufacturing segment of the informal sector.

Table III.12 : Unregistered Informal Sector Workers by Caste : 1999

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products/non-manufacturing activities	All cities					
			Caste					Total workers
			SC/ST	Brahmin	Kshetriya	Vaishya	Any other	
		<b>A. <u>Manufacturing</u></b>						
1.	20&21	Food products	33 (47.14)	7 (10.00)	8 (11.43)	5 (7.14)	17 (24.29)	70 (100.00)
2.	23	Cotton textiles	13 (30.96)	3 (7.14)	2 (4.76)	10 (23.81)	14 (33.33)	42 (100.00)
3.	28	Paper, printing and allied	18 (36.74)	5 (10.20)	5 (10.20)	7 (14.29)	14 (28.57)	49 (100.00)
4.	29	Leather products	21 (47.72)	3 (6.82)	2 (4.55)	1 (2.27)	17 (38.64)	44 (100.00)
5.	30	Rubber and plastics	13 (28.89)	2 (4.44)	4 (8.89)	12 (26.67)	14 (31.11)	45 (100.00)
6.	31	Chemicals	11 (26.19)	3 (7.14)	4 (9.52)	10 (23.82)	14 (33.33)	42 (100.00)
7.	33	Basic metals	17 (37.78)	4 (8.89)	1 (2.22)	2 (4.44)	21 (46.67)	45 (100.00)
8.	34	Metal products	12 (28.58)	2 (4.76)	3 (7.14)	9 (21.43)	16 (38.09)	42 (100.00)
9.	35	Machinery	15 (34.89)	7 (16.27)	4 (9.30)	1 (2.33)	16 (37.21)	43 (100.00)
10.	36	Electrical machinery	13 (30.23)	7 (16.27)	5 (11.73)	4 (9.30)	14 (32.57)	43 (100.00)
11.	38	Other manufacturing	38 (45.23)	7 (8.33)	4 (4.76)	2 (2.38)	33 (39.30)	84 (100.00)
12.	39	Repairs	36 (55.39)	3 (4.62)	4 (6.15)	2 (3.08)	20 (30.76)	65 (100.00)
		<b>Sub-Total</b>	240 (39.09)	53 (8.63)	46 (7.49)	65 (10.59)	210 (34.20)	614 (100.00)

Table III.12 (contd....)

		B. <u>Non-Manufacturing</u>						
13.	60	Wholesale trade in food and miscellaneous manufactures	11 (27.50)	3 (7.50)	7 (17.50)	5 (12.50)	14 (35.00)	40 (100.00)
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	11 (27.50)	5 (12.50)	7 (17.50)	7 (17.50)	10 (25.00)	40 (10.00)
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	31 (48.44)	6 (9.38)	5 (7.81)	8 (12.50)	14 (21.87)	64 (100.00)
16.	66	Retail trade in textiles	16 (32.65)	5 (10.20)	2 (4.08)	14 (28.57)	12 (24.50)	49 (100.00)
17.	67	Retail trade in fuel and other household utilities and durable	19 (35.19)	4 (7.41)	8 (14.81)	15 (27.78)	8 (14.81)	54 (100.00)
18.	68	Retail trade in others	41 (47.12)	6 (6.89)	11 (12.64)	12 (13.79)	17 (19.56)	87 (100.00)
19.	69	Restaurants and hotels	21 (40.39)	8 (15.38)	12 (23.08)	2 (3.85)	9 (17.30)	52 (100.00)
20.	74	Storage and warehousing	18 (40.91)	2 (4.55)	2 (4.55)	7 (15.91)	15 (34.08)	44 (100.00)
21.	82	Real estate and business services	6 (15.00)	8 (20.00)	12 (30.00)	3 (7.50)	11 (27.50)	40 (100.00)
22.	96	Personal services	64 (66.67)	2 (2.08)	1 (1.04)	--	29 (30.21)	96 (100.00)
23.	99	Services not elsewhere classified	281 (87.81)	6 (1.88)	1 (0.31)	1 (0.31)	31 (9.69)	320 (100.00)
		Sub-Total	519 (58.58)	55 (6.21)	68 (7.67)	74 (8.35)	170 (19.19)	886 (100.00)
		Grand-Total	759 (50.60)	108 (7.20)	114 (7.60)	139 (9.27)	380 (25.33)	1500 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

In total of manufacturing and non-manufacturing segments, SC/ST workers occupied the paramount importance accounting for over half of workers in total of all cities. Other caste workers account for 25.33 per cent, vaishya to 9.27 per cent, kshetriya to 7.60 per cent and brahmin to 7.20 per cent of manufacturing and non-manufacturing workers. The above empirical analysis, thus, underlines the significance of SC/ST workers in the unregistered informal sector in the cities taken together, though workers from remaining categories have also been seen somewhat significant (table III.12).

## V. Marital Status of Unregistered Informal Sector Workers

Another important dimension is the examination of marital status of workers in unregistered manufacturing and non-manufacturing informal economic activities. So as to examine above aspect, tables III.13 and III.14 have been given to show the marital status of unregistered manufacturing and non-manufacturing informal sector workers.

The general finding tends to suggest that a majority of workers within the manufacturing segment is married being 68.68 per cent in Agra, 67.45 per cent in Kanpur and to 76.59 per cent in Puri. The percentage of unmarried workers come to 28.68 in Agra, 28.63 in Kanpur and to 15.96 per cent in Puri. Also, the percentage of widow/widower are 2.64 in Agra, 3.53 in Kanpur and to 7.45 in Puri. As against above, the separated persons are found to be only 0.39 per cent only in Kanpur. In Agra and Puri the percentage of workers in this particular category are, however, found to be non-existent. At a level of product disaggregation, a similar finding more or less has also prevailed in Agra, Kanpur and in Puri cities (table III.13).

Within the non-manufacturing segment, 71.06 per cent of workers in Agra, 66.53 per cent in Kanpur and to 79.06 per cent in Puri are found married. The unmarried workers are found to be 25.11 per cent in Agra, 30.20 per cent in Kanpur and to 13.05 per cent in Puri. Similarly, widow/widower has been recorded to be 3.40 per cent in Agra, 3.27 per cent in Kanpur and to 7.64 per cent in Puri. Separated workers are 0.43 per cent in Agra and to 0.25 per cent in Puri. In Kanpur, however, separated workers are not found existing. Across different non-manufacturing activities, a similar finding, excepting in restaurants and hotels (NIC-69) has emerged in Agra, Kanpur and in Puri. In restaurants and hotels (NIC-69) in Agra, the unmarried workers are found to be proportionately higher (65 per cent) than to that of married workers (35 per cent). The relevant information on above counts have been given in table III.14.

Table III.13 : Unregistered Manufacturing Informal Workers by Marital Status : 1999

Sl. No.	NIC code no	Manufacturing products	Agra					
			Marital status					
			Married	Unmarried	Widow/ Widower	Divorcee	Separated	Total workers
1.	20&21	Food products	11 (50.00)	11 (50.00)	--	--	--	22 (100.00)
2.	23	Cotton textiles	16 (80.00)	4 (20.00)	--	--	--	20 (100.00)
3.	28	Paper, printing and allied	16 (72.73)	6 (27.27)	--	--	--	22 (100.00)
4.	29	Leather products	16 (80.00)	4 (20.00)	--	--	--	20 (100.00)
5.	30	Rubber and plastics	12 (60.00)	8 (40.00)	--	--	--	20 (100.00)
6.	31	Chemicals	16 (76.19)	4 (19.05)	1 (4.76)	--	--	21 (100.00)
7.	33	Basic metals	16 (69.57)	6 (26.09)	1 (4.34)	--	--	23 (100.00)
8.	34	Metal products	11 (55.00)	8 (40.00)	1 (5.00)	--	--	20 (100.00)
9.	35	Machinery	16 (76.19)	4 (19.05)	1 (4.76)	--	--	21 (100.00)
10.	36	Electrical machinery	13 (61.90)	8 (38.10)	--	--	--	21 (100.00)
11.	38	Other manufacturing	25 (75.76)	5 (15.15)	3 (9.09)	--	--	33 (100.00)
12.	39	Repairs	14 (63.64)	8 (36.36)	--	--	--	22 (100.00)
		Total	182 (68.68)	76 (28.68)	7 (2.64)	--	--	265 (100.00)

Table III.13 (contd....)

Sl. No.	NIC code no	Manufacturing products	(Workers in No.) Kanpur					
			Marital status					
			Married	Unmarried	Widow/ Widower	Divorcee	Sepa- rated	Total workers
1.	20&21	Food products	13 (65.00)	7 (35.00)	--	--	--	20 (100.00)
2.	23	Cotton textiles	13 (65.00)	7 (35.00)	--	--	--	20 (100.00)
3.	28	Paper, printing and allied	15 (75.00)	4 (20.00)	1 (5.00)	--	--	20 (100.00)
4.	29	Leather products	15 (62.50)	8 (33.33)	1 (4.17)	--	--	24 (100.00)
5.	30	Rubber and plastics	14 (70.00)	5 (25.00)	1 (5.00)	--	--	20 (100.00)
6.	31	Chemicals	14 (70.00)	5 (25.00)	--	--	1 (5.00)	20 (100.00)
7.	33	Basic metals	15 (75.00)	4 (20.00)	1 (5.00)	--	--	20 (100.00)
8.	34	Metal products	12 (60.00)	7 (35.00)	1 (5.00)	--	--	20 (100.00)
9.	35	Machinery	13 (65.00)	6 (35.00)	1 (5.00)	--	--	20 (100.00)
10.	36	Electrical machinery	14 (70.00)	6 (30.00)	--	--	--	20 (100.00)
11.	38	Other manufacturing	20 (66.67)	7 (23.33)	3 (10.00)	--	--	30 (100.00)
12.	39	Repairs	14 (66.67)	7 (33.33)	--	--	--	21 (100.00)
		Total	172 (67.45)	73 (28.63)	9 (3.53)	--	1 (0.39)	255 (100.00)



Table III. 13 (contd....)

Sl. No.	NIC code no	Manufacturing products	(Workers in No.)					
			Puri					
			Marital status					
			Married	Unmarried	Widow/ Widower	Divorcee	Sepa- rated	Total workers
1.	20&21	Food products	25 (89.29)	1 (3.57)	2 (7.14)	--	--	28 (100.00)
2.	23	Cotton textiles	2 (100.00)	--	--	--	--	2 (100.00)
3.	28	Paper, printing and allied	5 (71.42)	1 (14.29)	1 (14.29)	--	--	7 (100.00)
4.	29	Leather products	--	--	--	--	--	--
5.	30	Rubber and plastics	4 (80.00)	1 (20.00)	--	--	--	5 (100.00)
6.	31	Chemicals	--	1 (100.00)	--	--	--	1 (100.00)
7.	33	Basic metals	1 (50.00)	1 (50.00)	--	--	--	2 (100.00)
8.	34	Metal products	2 (100.00)	--	--	--	--	2 (100.00)
9.	35	Machinery	2 (100.00)	--	--	--	--	2 (100.00)
10.	36	Electrical machinery	2 (100.00)	--	--	--	--	2 (100.00)
11.	38	Other manufacturing	12 (57.14)	6 (23.81)	4 (19.05)	--	--	21 (100.00)
12.	39	Repairs	17 (77.27)	5 (22.73)	--	--	--	22 (100.00)
		Total	72 (76.59)	15 (15.96)	7 (7.45)	--	--	94 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

Table III.14 : Unregistered Non-Manufacturing Informal Workers by Marital Status : 1999

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Agra					
			Marital status					
			Married	Unmarried	Widow/ Widower	Divorcee	Sepa- rated	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	15 (75.00)	5 (25.00)	--	--	--	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	12 (60.00)	5 (25.00)	3 (15.00)	--	--	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	14 (70.00)	6 (30.00)	--	--	--	20 (100.00)
4.	66	Retail trade in textiles	16 (80.00)	2 (10.00)	2 (10.00)	--	--	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	16 (80.00)	3 (15.00)	--	--	1 (5.00)	20 (100.00)
6.	68	Retail trade in others	13 (56.52)	9 (39.13)	1 (4.35)	--	--	23 (100.00)
7.	69	Res'taurants and hotels	7 (35.00)	13 (65.00)	--	--	--	20 (100.00)
8.	74	Storage and warehousing	19 (82.61)	3 (13.04)	1 (4.35)	--	--	23 (100.00)
9.	82	Real estate and business services	16 (80.00)	3 (15.00)	1 (5.00)	--	--	20 (100.00)
10.	96	Personal services	17 (70.83)	7 (29.17)	--	--	--	24 (100.00)
11.	99	Services not elsewhere classified	22 (88.00)	3 (12.00)	--	--	--	25 (100.00)
		Total	167 (71.06)	59 (25.11)	8 (3.40)	--	1 (0.43)	235 (100.00)

Table III.14 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Kanpur					
			Marital status					
			Married	Unmarried	Widow/ Widower	Divorcee	Separated	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	16 (80.00)	4 (20.00)	--	--	--	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	13 (65.00)	6 (30.00)	2 (10.00)	--	--	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	12 (60.00)	6 (30.00)	2 (10.00)	--	--	20 (100.00)
4.	66	Retail trade in textiles	12 (60.00)	7 (35.00)	1 (5.00)	--	--	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	14 (70.00)	5 (25.00)	1 (5.00)	--	--	20 (100.00)
6.	68	Retail trade in others	34 (82.93)	6 (14.63)	1 (2.44)	--	--	41 (100.00)
7.	69	Restaurants and hotels	8 (40.00)	12 (60.00)	--	--	--	20 (100.00)
8.	74	Storage and warehousing	11 (55.00)	7 (35.00)	2 (10.00)	--	--	20 (100.00)
9.	82	Real estate and business services	11 (55.00)	9 (45.00)	--	--	--	20 (100.00)
10.	96	Personal services	15 (75.00)	5 (5.00)	--	--	--	20 (100.00)
11.	99	Services not elsewhere classified	17 (70.83)	7 (29.17)	--	--	--	24 (100.00)
		Total	163 (66.53)	74 (30.20)	8 (3.27)	--	--	245 (100.00)

Table III.14 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Puri					
			Marital status					
			Married	Unmarried	Widow/ Widower	Divorcee	Separated	Total workers
1.	60	Wholesale trade in food and miscellaneous manufactures	--	--	--	--	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	--	--	--	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	19 (79.17)	3 (12.50)	1 (4.17)	--	1 (4.16)	24 (100.00)
4.	66	Retail trade in textiles	8 (88.89)	1 (11.11)	--	--	--	9 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	12 (85.71)	--	2 (14.29)	--	--	14 (100.00)
6.	68	Retail trade in others	15 (65.22)	5 (21.74)	3 (13.04)	--	--	23 (100.00)
7.	69	Restaurants and hotels	6 (50.00)	4 (33.33)	2 (16.67)	--	--	12 (100.00)
8.	74	Storage and warehousing	1 (100.00)	--	--	--	--	1 (100.00)
9.	82	Real estate and business services	--	--	--	--	--	--
10.	96	Personal services	35 (67.31)	7 (13.46)	10 (19.23)	--	--	52 (100.00)
11.	99	Services not elsewhere classified	225 (83.03)	33 (12.18)	13 (4.79)	--	--	271 (100.00)
		Total	321 (79.06)	53 (13.05)	31 (7.64)	--	1 (0.25)	406 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

Within the manufacturing activities in three cities together, we find that 69.38 per cent of workers are married, while to 26.71 per cent unmarried, 3.75 per cent widow/widower and to 0.16 per cent of workers are living separately without legal status. At disaggregated product level, a similar finding has also been reinforced by the analysis.

In all informal economic activities (manufacturing and non-manufacturing) in all cities (Agra, Kanpur and Puri), the married workers come to 71.80 per cent, which is found higher by

more than three times than that of unmarried workers (23.33 per cent). The widow/widower workers come to 4.67 per cent and that of separated to only 0.20 per cent. Thus, unregistered informal sector workers are generally found married, who do to lack of alternate remunerative job opportunity compelled by family stresses have preferred to enter into the unregistered informal sector for survival at subsistence level (table III.15).

Table III.15 : Unregistered Informal Sector Workers by Marital Status : 1999

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products/non-manufacturing activities	All cities					
			Marital status					
			Married	Unmarried	Widow/widower	Divorcee	Separated	Total workers
		<b>A. <u>Manufacturing</u></b>						
1.	20&21	Food products	49 (70.00)	19 (27.14)	2 (2.86)	--	--	70 (100.00)
2.	23	Cotton textiles	31 (73.81)	11 (26.19)	--	--	--	42 (100.00)
3.	28	Paper, printing and allied	36 (73.47)	11 (22.45)	2 (4.08)	--	--	49 (100.00)
4.	29	Leather products	31 (70.45)	12 (27.27)	1 (2.28)	--	--	44 (100.00)
5.	30	Rubber and plastics	30 (66.67)	14 (31.11)	1 (2.22)	--	--	45 (100.00)
6.	31	Chemicals	30 (71.43)	10 (23.81)	1 (2.38)	--	1 (2.38)	42 (100.00)
7.	33	Basic metals	32 (71.11)	11 (24.44)	2 (4.45)	--	--	45 (100.00)
8.	34	Metal products	25 (59.52)	15 (35.71)	2 (4.77)	--	--	42 (100.00)
9.	35	Machinery	31 (72.09)	10 (23.26)	2 (4.65)	--	--	43 (100.00)
10.	36	Electrical machinery	29 (67.44)	14 (32.56)	--	--	--	43 (100.00)
11.	38	Other manufacturing	57 (67.86)	17 (20.24)	10 (11.90)	--	--	84 (100.00)
12.	39	Repairs	45 (69.23)	20 (30.77)	--	--	--	65 (100.00)
		<b>Sub-Total</b>	426 (69.38)	164 (26.71)	23 (3.75)	--	1 (0.16)	614 (100.00)



Table III.15 (contd....)

		B. Non-Manufacturing						
13.	60	Wholesale trade in food and miscellaneous manufactures	31 (77.50)	9 (22.50)	--	--	--	40 (100.00)
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	25 (62.50)	11 (27.50)	4 (10.00)	--	--	40 (10.00)
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	45 (70.31)	15 (23.44)	3 (4.69)	--	1 (1.56)	64 (100.00)
16.	66	Retail trade in textiles	36 (73.47)	10 (20.41)	3 (6.12)	--	--	49 (100.00)
17.	67	Retail trade in fuel and other household utilities and durable	42 (77.78)	8 (14.81)	3 (5.56)	--	1 (1.85)	54 (100.00)
18.	68	Retail trade in others	62 (71.26)	20 (22.99)	5 (5.75)	--	--	87 (100.00)
19.	69	Restaurants and hotels	21 (40.38)	29 (55.77)	2 (3.85)	--	--	52 (100.00)
20.	74	Storage and warehousing	31 (70.45)	10 (22.73)	3 (6.82)	--	--	44 (100.00)
21.	82	Real estate and business services	27 (67.50)	12 (30.00)	1 (2.50)	--	--	40 (100.00)
22.	96	Personal services	67 (69.79)	19 (19.79)	10 (10.42)	--	--	96 (100.00)
23.	99	Services not elsewhere classified	264 (82.50)	43 (13.44)	13 (4.06)	--	--	320 (100.00)
		Sub-Total	651 (73.48)	186 (20.99)	47 (5.30)	--	2 (0.23)	886 (100.00)
		Grand-Total	1077 (71.80)	350 (23.33)	70 (4.67)	--	3 (0.20)	1500 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

## VI. Educational Background of Unregistered Informal Sector Workers

### VI.1 Manufacturing

The educational background of workers is another important dimension of unregistered informal sector workers. Table III.16 describes the level of education of workers employed in unregistered informal manufacturing segment. In Agra, a majority of workers (24.91 per cent)

can neither read nor write. Over 19 per cent obtained education upto primary level; 21.13 per cent upto VIII<sup>th</sup> standard; over 20 per cent upto X<sup>th</sup>; over 7 per cent upto XII<sup>th</sup>; over 5 per cent upto graduate; 1.13 per cent upto post-graduate; and to 0.38 per cent had the technical education or diploma degree. Across different economic activities, we find that 22.73 per cent of workers in food and food products (NIC-20&21); 30 per cent in cotton textiles (NIC-23); 35 per cent in leather products (NIC-29); 23.80 per cent in chemicals (NIC-31); and to 56.52 per cent in basic metals (NIC-33) are illiterates. Thus, a majority of workers can be described as illiterates in the unregistered informal manufacturing segment in Agra city (table III.16).

In Kanpur, a majority of workers (22.35 per cent) is found educated upto X<sup>th</sup> standard; 12.94 per cent upto V<sup>th</sup>; 21.96 per cent upto VIII<sup>th</sup>; 18.43 per cent upto XII<sup>th</sup>; 8.24 per cent upto graduate; 0.39 per cent upto post-graduate; and to 1.18 per cent had technical education or diploma degree. In different economic activities, a majority of workers (30 per cent) in food and food products (NIC-20&21), 55 per cent in cotton textiles (NIC-23); and to 40 per cent in metal products (NIC-34) obtained education upto X<sup>th</sup> standard. It would imply that Kanpur being the most industrialized city in the state of Uttar Pradesh had engaged a relatively more educated workers in the unregistered informal manufacturing segment (table III.16).

In Puri, 30.85 per cent of workers are found illiterates; 25.53 per cent are educated upto V<sup>th</sup> standard; 18.09 per cent upto VIII<sup>th</sup> standard; and to 25.53 per cent upto X<sup>th</sup> standard. Across different activities, we find that 50 per cent of workers in food and food products (NIC-20&21); and to 38.09 per cent in other manufacturing (NIC-38) are illiterates. Thus, illiteracy has prevailed among the workers employed in unregistered manufacturing informal segment (table III.16).

Table III.16 : Distribution of Unregistered Manufacturing Informal Workers by their Educational Background : 1999

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Agra								
			Educational level								
			Upto V	VI-VIII	IX-X	XI-XII	Graduate	Post-graduate	Technical/Dip. Degree	Illiterate	Total
1.	20&21	Food products	4 (18.16)	5 (22.73)	5 (22.73)	1 (4.55)	1 (4.55)	1 (4.55)	--	5 (22.73)	22 (100.00)
2.	23	Cotton textiles	3 (15.00)	5 (25.00)	1 (5.00)	3 (15.00)	2 (10.00)	--	--	6 (30.00)	20 (100.00)
3.	28	Paper, printing and allied	4 (18.18)	5 (22.73)	10 (45.45)	2 (9.09)	--	--	--	1 (4.55)	22 (100.00)
4.	29	Leather products	7 (35.00)	2 (10.00)	2 (10.00)	2 (10.00)	--	--	--	7 (35.00)	20 (100.00)
5.	30	Rubber and plastics	3 (15.00)	6 (30.00)	5 (25.00)	1 (5.00)	--	1 (5.00)	--	4 (20.00)	20 (100.00)
6.	31	Chemicals	--	4 (19.05)	4 (19.05)	4 (19.05)	4 (19.05)	--	--	5 (23.80)	21 (100.00)
7.	33	Basic metals	4 (17.39)	4 (17.39)	2 (8.70)	--	--	--	--	13 (56.52)	23 (100.00)
8.	34	Metal products	6 (30.00)	4 (40.00)	3 (15.00)	1 (5.00)	2 (10.00)	--	--	4 (20.00)	20 (100.00)
9.	35	Machinery	9 (42.86)	5 (23.81)	2 (9.52)	--	1 (4.76)	--	--	4 (19.05)	21 (100.00)
10.	36	Electrical machinery	1 (4.76)	3 (14.29)	11 (52.38)	3 (14.29)	2 (9.52)	--	1 (4.76)	--	21 (100.00)
11.	38	Other manufacturing	8 (24.24)	8 (24.24)	3 (9.09)	--	2 (6.06)	1 (3.03)	--	11 (33.34)	33 (100.00)
12.	39	Repairs	3 (13.64)	5 (22.73)	6 (27.27)	2 (9.09)	--	--	--	6 (27.27)	22 (100.00)
		Total	52 (19.62)	56 (21.13)	54 (20.38)	19 (7.17)	14 (5.28)	3 (1.13)	1 (0.38)	66 (24.91)	265 (100.00)

Table III.16 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Kanpur								
			Educational level								
			Upto V	VI-VIII	IX-X	XI-XII	Graduate	Post-graduate	Technical/Dip. Degree	Illiterate	Total
1.	20&21	Food products	5 (25.00)	5 (25.00)	6 (30.00)	—	1 (5.00)	—	—	3 (15.00)	20 (100.00)
2.	23	Cotton textiles	1 (5.00)	2 (10.00)	11 (55.00)	4 (20.00)	2 (10.00)	—	—	—	20 (100.00)
3.	28	Paper, printing and allied	—	8 (40.00)	4 (20.00)	5 (25.00)	2 (10.00)	1 (5.00)	—	—	20 (100.00)
4.	29	Leather products	4 (16.67)	7 (29.16)	3 (12.50)	2 (8.33)	4 (16.67)	—	—	4 (16.67)	24 (100.00)
5.	30	Rubber and plastics	1 (5.00)	7 (35.00)	3 (15.00)	6 (30.00)	2 (10.00)	—	—	1 (5.00)	20 (100.00)
6.	31	Chemicals	1 (5.00)	3 (15.00)	4 (20.00)	8 (40.00)	3 (15.00)	—	—	1 (5.00)	20 (100.00)
7.	33	Basic metals	7 (35.00)	1 (5.00)	3 (15.00)	2 (10.00)	—	—	—	7 (35.00)	20 (100.00)
8.	34	Metal products	2 (10.00)	4 (20.00)	8 (40.00)	3 (15.00)	1 (5.00)	—	—	2 (10.00)	20 (100.00)
9.	35	Machinery	4 (20.00)	3 (15.00)	6 (30.00)	6 (30.00)	1 (5.00)	—	—	—	20 (100.00)
10.	36	Electrical machinery	—	2 (10.00)	4 (20.00)	6 (30.00)	5 (25.00)	—	3 (15.00)	—	20 (100.00)
11.	38	Other manufacturing	5 (16.67)	10 (33.33)	3 (10.00)	2 (6.67)	—	—	—	10 (33.33)	30 (100.00)
12.	39	Repairs	3 (14.29)	4 (19.05)	2 (9.52)	3 (14.29)	—	—	—	9 (42.85)	21 (100.00)
		Total	33 (12.94)	56 (21.96)	57 (22.35)	47 (18.43)	21 (8.24)	1 (0.39)	3 (1.18)	37 (14.51)	265 (100.00)

Table III.16 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Puri								
			Educational level								
			Upto V	VI-VIII	IX-X	XI-XII	Graduate	Post-graduate	Technical/Dip. Degree	Illiterate	Total
1.	20&21	Food products	8 (28.57)	4 (14.29)	2 (7.14)	--	--	--	--	14 (50.00)	28 (100.00)
2.	23	Cotton textiles	2 (100.00)	--	--	--	--	--	--	--	2 (100.00)
3.	28	Paper, printing and allied	2 (28.57)	1 (14.29)	4 (57.14)	--	--	--	--	--	7 (100.00)
4.	29	Leather products	--	--	--	--	--	--	--	--	--
5.	30	Rubber and plastics	2 (40.00)	2 (40.00)	1 (20.00)	--	--	--	--	--	5 (100.00)
6.	31	Chemicals	--	--	1 (100.00)	--	--	--	--	--	1 (100.00)
7.	33	Basic metals	--	--	2 (100.00)	--	--	--	--	--	2 (100.00)
8.	34	Metal products	--	2 (100.00)	--	--	--	--	--	--	2 (100.00)
9.	35	Machinery	--	--	2 (100.00)	--	--	--	--	--	2 (100.00)
10.	36	Electrical machinery	2 (100.00)	--	--	--	--	--	--	--	2 (100.00)
11.	38	Other manufacturing	4 (19.05)	4 (19.05)	5 (23.81)	--	--	--	--	8 (38.09)	21 (100.00)
12.	39	Repairs	4 (18.18)	4 (18.18)	7 (31.82)	--	--	--	--	7 (31.82)	22 (100.00)
		Total	24 (25.53)	17 (18.09)	24 (25.53)	--	--	--	--	29 (30.85)	94 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.



## **VI.2 Non-Manufacturing**

Educational background of workers engaged in unregistered informal non-manufacturing segment has been described in table III.17. In Agra, 23.40 per cent of workers obtained education upto X<sup>th</sup> standard; 12.77 per cent upto primary; 16.17 per cent upto VIII<sup>th</sup>; 14.04 per cent upto XII<sup>th</sup>; 8.94 per cent upto graduate; 2.55 per cent upto post-graduate; and to 0.85 per cent had technical education or diploma degree. Over 21 per cent of workers are described as illiterates. Thus, in unregistered non-manufacturing informal, a majority of workers had education upto X<sup>th</sup> standard. Such a finding is strongly supported by retail trade in fuel and other household utilities and durables (NIC-67) and services not elsewhere classified (NIC-99), while 35 per cent and to 36 per cent of workers obtained education upto X<sup>th</sup> standard. Thus, the educational level of workers in the unregistered non-manufacturing informal segment in Agra has generally been described upto X<sup>th</sup> standard (table III.17).

In Kanpur, 26.94 per cent of workers are found educated upto X<sup>th</sup> standard; 15.10 per cent upto V<sup>th</sup>; 15.51 per cent upto VIII<sup>th</sup>; 17.14 per cent upto XII<sup>th</sup>; 15.10 per cent upto graduate; 1.63 per cent upto post-graduate; 0.41 per cent with technical education or diploma degrees; and to 8.17 per cent of workers are described as illiterates. Across different economic activities, 35 per cent of workers in retail trade in textiles (NIC-66); 29.27 per cent in retail trade in others (NIC-68); and to 45 per cent in personal services (NIC-96) are found educated upto X<sup>th</sup> standard. It would imply that within the unregistered non-manufacturing informal segment in Kanpur, workers with X<sup>th</sup> standard of education are more significant than those workers having varying levels of educational background (table III.17).

Table III.17 : Distribution of Unregistered Non-Manufacturing Informal Workers by their Educational Background : 1999

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Agra								
			Educational level								
			Upto V	VI-VIII	IX-X	XI-XII	Graduate	Post-graduate	Technical/Dip. Degree	Illiterate	Total
1.	60	Wholesale trade in food and miscellaneous manufactures	2 (10.00)	1 (5.00)	6 (30.00)	2 (10.00)	1 (5.00)	--	--	8 (40.00)	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	2 (10.00)	1 (5.00)	5 (25.00)	3 (15.00)	5 (25.00)	1 (5.00)	1 (5.00)	2 (10.00)	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	6 (30.00)	2 (10.00)	4 (20.00)	3 (15.00)	4 (20.00)	--	--	1 (5.00)	20 (100.00)
4.	66	Retail trade in textiles	--	8 (40.00)	4 (20.00)	1 (5.00)	1 (5.00)	1 (5.00)	--	--	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	2 (10.00)	3 (15.00)	7 (35.00)	4 (20.00)	2 (10.00)	--	--	2 (10.00)	20 (100.00)
6.	68	Retail trade in others	2 (8.70)	7 (30.43)	4 (17.39)	2 (8.70)	1 (4.35)	1 (4.35)	--	6 (26.08)	23 (100.00)
7.	69	Restaurants and hotels	4 (20.00)	4 (20.00)	2 (10.00)	--	--	--	1 (5.00)	9 (45.00)	20 (100.00)
8.	74	Storage and warehousing	6 (26.09)	3 (13.03)	6 (26.09)	--	1 (4.35)	1 (4.35)	--	6 (26.09)	23 (100.00)
9.	82	Real estate and business services	--	1 (5.00)	5 (25.00)	6 (30.00)	6 (30.00)	1 (5.00)	--	1 (5.00)	20 (100.00)
10.	96	Personal services	4 (16.67)	4 (16.67)	3 (12.50)	4 (16.67)	--	1 (4.16)	--	8 (33.33)	24 (100.00)
11.	99	Services not elsewhere classified	2 (8.00)	4 (16.00)	9 (36.00)	3 (12.00)	--	--	--	7 (28.00)	25 (100.00)
		Total	30 (12.77)	38 (16.17)	55 (23.40)	33 (14.04)	21 (8.94)	6 (2.55)	2 (0.85)	50 (21.28)	235 (100.00)

Table III.17 (contd.,...)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Kanpur								
			Educational level								
			Upto V	VI-VIII	IX-X	XI-XII	Graduate	Post-graduate	Technical/Dip. Degree	Illiterate	Total
1.	60	Wholesale trade in food and miscellaneous manufactures	4 (20.00)	4 (20.00)	4 (20.00)	2 (10.00)	1 (5.00)	1 (5.00)	--	4 (20.00)	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	1 (5.00)	6 (30.00)	8 (40.00)	3 (15.00)	--	1 (5.00)	1 (5.00)	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	2 (10.00)	2 (10.00)	7 (35.00)	7 (35.00)	2 (10.00)	--	--	--	20 (100.00)
4.	66	Retail trade in textiles	2 (10.00)	2 (10.00)	7 (35.00)	6 (30.00)	3 (15.00)	--	--	--	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	1 (5.00)	4 (20.00)	5 (25.00)	2 (10.00)	8 (40.00)	--	--	--	20 (100.00)
6.	68	Retail trade in others	6 (14.63)	5 (12.20)	12 (29.27)	8 (19.51)	9 (21.95)	--	--	1 (2.44)	41 (100.00)
7.	69	Restaurants and hotels	6 (30.00)	5 (25.00)	4 (20.00)	--	1 (5.00)	--	--	4 (20.00)	20 (100.00)
8.	74	Storage and warehousing	6 (30.00)	3 (15.00)	3 (15.00)	1 (5.00)	--	1 (5.00)	--	6 (30.00)	20 (100.00)
9.	82	Real estate and business services	--	1 (5.00)	2 (10.00)	6 (30.00)	9 (45.00)	2 (10.00)	--	--	20 (100.00)
10.	96	Personal services	4 (20.00)	4 (20.00)	9 (45.00)	--	--	--	--	3 (15.00)	20 (100.00)
11.	99	Services not elsewhere classified	6 (25.00)	7 (29.17)	7 (29.17)	2 (8.32)	1 (4.17)	--	--	1 (4.17)	24 (100.00)
		Total	37 (15.10)	38 (15.51)	66 (26.94)	42 (17.14)	37 (15.10)	4 (1.63)	1 (0.41)	20 (8.17)	245 (100.00)

Table III. 17 (contd.,....)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Puri								
			Educational level								
			Upto V	VI-VIII	IX-X	XI-XII	Graduate	Post-graduate	Technical/Dip. Degree	Illiterate	Total
1.	60	Wholesale trade in food and miscellaneous manufactures	--	--	--	--	--	--	--	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	--	--	--	--	--	--	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	5 (20.83)	6 (25.00)	5 (20.83)	--	1 (4.17)	--	--	7 (29.17)	24 (100.00)
4.	66	Retail trade in textiles	2 (22.22)	1 (11.11)	2 (22.22)	--	--	--	--	4 (44.45)	9 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	3 (21.43)	4 (28.57)	4 (28.57)	--	--	--	--	3 (21.43)	14 (100.00)
6.	68	Retail trade in others	8 (34.78)	4 (17.39)	5 (21.74)	--	--	--	--	6 (26.09)	23 (100.00)
7.	69	Restaurants and hotels	3 (25.00)	1 (8.33)	2 (16.67)	--	1 (8.33)	--	--	5 (41.67)	12 (100.00)
8.	74	Storage and warehousing	--	1 (100.00)	--	--	--	--	--	--	1 (100.00)
9.	82	Real estate and business services	--	--	--	--	--	--	--	--	--
10.	96	Personal services	8 (15.39)	7 (13.46)	7 (13.46)	4 (7.69)	--	--	--	26 (50.00)	52 (100.00)
11.	99	Services not elsewhere classified	43 (15.87)	9 (3.32)	18 (6.64)	5 (1.85)	--	--	--	196 (72.32)	271 (100.00)
		Total	72 (17.73)	33 (8.13)	43 (10.59)	9 (2.22)	2 (0.49)	--	--	247 (60.84)	406 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

In Puri, a majority of workers (60.84 per cent) is found to be illiterates. The 17.73 per cent of workers obtained education upto primary; 8.13 per cent upto VIII<sup>th</sup>; 10.59 per cent upto X<sup>th</sup>; 2.22 per cent upto XII<sup>th</sup>; and to 0.49 per cent upto graduation. Thus, a majority of workers is illiterate. Across different economic non-manufacturing activities, it is notable that 29.17 per cent of workers in retail trade in food and food products, etc. (NIC-65); 44.45 per cent in retail trade in textiles (NIC-66); 50 per cent in personal services (NIC-96); and to 72.32 per cent in services not elsewhere classified (NIC-99) are described as illiterates. Thus, illiteracy prevailed enormously within unregistered non-manufacturing informal segment in Puri (table III.17).

In all cities together, within the manufacturing segment, a majority of workers (21.99 per cent) obtained education upto X<sup>th</sup> standard; 17.75 per cent upto primary; 21.01 per cent upto VIII<sup>th</sup>; 10.75 per cent upto XII<sup>th</sup>; 5.70 per cent upto graduate, etc. However, 21.50 per cent of workers were found illiterates. Thus, generally X<sup>th</sup> standard of education had prevailed in the manufacturing segment of unregistered informal sector. Across different economic activities, workers with X<sup>th</sup> standard of education are recorded to be 28.57 per cent in textiles (NIC-23); 36.73 per cent in paper, printing and allied (NIC-28); 26.19 per cent in metal products (NIC-34); and to 34.88 per cent in electrical machinery (NIC-36). The information on above count has been recorded in table III.18.

Within the non-manufacturing segment, 15.69 per cent of workers obtained education upto primary; 12.30 per cent upto VIII<sup>th</sup>; 18.51 per cent upto X<sup>th</sup>; 9.48 per cent upto XII<sup>th</sup>; 6.77 per cent upto graduate; 1.13 per cent upto post-graduate; and to 0.34 per cent of workers had technical education or diploma degree. However, a majority of workers (35.78 per cent) had been described as illiterates in this segment. Such a finding has also been seen corroborated in various economic non-manufacturing activities. For instance, 30 per cent of workers in wholesale trade in food and miscellaneous manufactures (NIC-60); 34.61 per cent of workers



in restaurants and hotels (NIC-69); 38.54 per cent of workers in personal services (NIC-96); and to 63.75 per cent of workers in services not elsewhere classified (NIC-99) are found to be illiterates. Thus, illiteracy among the non-manufacturing informal segment has been described as an important characteristic.

Table III.18 : Distribution of Unregistered Informal Sector Workers by their Educational Background : 1999

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products/non-manufacturing activities	All cities								
			Educational level								
			Upto V	VI-VIII	IX-X	XI-XII	Graduate	Post-graduate	Technical/Dip. Degree	Illiterate	Total
A. Manufacturing											
1.	20&21	Food products	17 (24.29)	14 (20.00)	13 (18.57)	1 (1.43)	2 (2.86)	1 (1.43)	--	22 (31.42)	70 (100.00)
2.	23	Cotton textiles	6 (14.29)	7 (16.67)	12 (28.57)	7 (16.67)	4 (9.51)	--	--	6 (14.29)	42 (100.00)
3.	28	Paper, printing and allied	6 (12.25)	14 (28.57)	18 (36.73)	7 (14.29)	2 (4.08)	1 (2.04)	--	1 (2.04)	49 (100.00)
4.	29	Leather products	11 (25.00)	9 (20.46)	5 (11.36)	4 (9.09)	4 (9.09)	--	--	11 (25.00)	44 (100.00)
5.	30	Rubber and plastics	6 (13.33)	15 (33.33)	9 (20.00)	7 (15.56)	2 (4.44)	1 (2.22)	--	5 (11.12)	45 (100.00)
6.	31	Chemicals	1 (2.38)	7 (16.67)	9 (21.42)	12 (28.57)	7 (16.67)	--	--	6 (14.29)	42 (100.00)
7.	33	Basic metals	11 (24.44)	5 (11.12)	7 (15.56)	2 (4.44)	--	--	--	20 (44.44)	45 (100.00)
8.	34	Metal products	8 (19.05)	10 (23.81)	11 (26.19)	4 (9.51)	3 (7.15)	--	--	6 (14.29)	42 (100.00)
9.	35	Machinery	13 (30.23)	8 (18.60)	10 (23.26)	6 (13.95)	2 (4.65)	--	--	4 (9.31)	43 (100.00)
10.	36	Electrical machinery	3 (6.98)	5 (11.63)	15 (34.88)	9 (20.93)	7 (16.27)	--	4 (9.31)	--	43 (100.00)
11.	38	Other manufacturing	17 (20.24)	22 (26.19)	11 (13.09)	2 (2.38)	2 (2.38)	1 (1.20)	--	29 (34.52)	84 (100.00)
12.	39	Repairs	10 (15.38)	13 (20.00)	15 (23.08)	5 (7.69)	--	--	--	22 (33.85)	65 (100.00)
		Sub-Total	109 (17.75)	129 (21.01)	135 (21.99)	66 (10.75)	35 (5.70)	4 (0.65)	4 (0.65)	132 (21.50)	614 (100.00)

Table III.18 (contd....)

<b>B. Non-Manufacturing</b>											
13.	60	Wholesale trade in food and miscellaneous manufactures	6 (15.00)	5 (12.50)	10 (25.00)	4 (10.00)	2 (5.00)	1 (2.50)	--	12 (30.00)	40 (100.00)
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	2 (5.00)	2 (5.00)	11 (27.50)	11 (27.50)	8 (20.00)	1 (2.50)	2 (5.00)	3 (7.50)	40 (10.00)
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	13 (20.31)	10 (15.63)	16 (25.00)	10 (15.63)	7 (10.93)	--	--	8 (12.50)	64 (100.00)
16.	66	Retail trade in textiles	4 (8.16)	11 (22.45)	13 (26.54)	12 (24.49)	4 (8.16)	1 (2.04)	--	4 (8.16)	49 (100.00)
17.	67	Retail trade in fuel and other household utilities and durable	6 (11.11)	11 (20.37)	16 (29.63)	6 (11.11)	10 (18.52)	--	--	5 (9.26)	54 (100.00)
18.	68	Retail trade in others	16 (18.39)	16 (18.39)	21 (24.14)	10 (11.49)	10 (11.49)	1 (1.15)	--	13 (14.95)	87 (100.00)
19.	69	Restaurants and hotels	13 (25.00)	10 (19.23)	8 (15.38)	--	2 (3.85)	--	1 (1.93)	18 (34.61)	52 (100.00)
20.	74	Storage and warehousing	12 (27.28)	7 (15.91)	9 (20.45)	1 (2.27)	2 (4.54)	--	12 (27.28)		44 (100.00)
21.	82	Real estate and business services	--	2 (5.00)	7 (17.50)	12 (30.00)	15 (37.50)	3 (7.50)	--	1 (2.50)	40 (100.00)
22.	96	Personal services	16 (16.67)	15 (15.63)	19 (19.79)	8 (8.33)	--	1 (1.04)	--	37 (38.54)	96 (100.00)
23.	99	Services not elsewhere classified	51 (15.94)	20 (6.25)	34 (10.63)	10 (3.12)	1 (0.31)	--	--	204 (63.75)	320 (100.00)
		Sub-Total	139 (15.69)	109 (12.30)	164 (18.51)	84 (9.48)	60 (6.77)	10 (1.13)	3 (0.34)	317 (35.78)	886 (100.00)
		Grand-Total	248 (16.53)	238 (15.87)	299 (19.93)	150 (10.00)	95 (6.33)	14 (0.93)	7 (0.47)	449 (29.94)	1500 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

In unregistered informal sector total (manufacturing and non-manufacturing) in all cities (Agra, Kanpur and Puri), 16.53 per cent of workers obtained education upto primary level; 15.87 per cent upto VIII<sup>th</sup>; 19.93 per cent upto X<sup>th</sup>; 10 per cent upto XII<sup>th</sup>; 6.33 per cent upto graduate; 0.93 per cent upto post-graduate; and to 0.47 per cent of workers had technical education or diploma degree. It is distressing, however, to note that a majority of workers (29.94 per cent) were found to be illiterates. It emerges that illiteracy is preponderant characteristic of the unregistered informal sector workers, as a whole (table III.18).

## **VII. Employment Structure of Unregistered Informal Sector Workers**

We may now describe the employment composition of workers engaged in unregistered informal manufacturing and non-manufacturing segment. Table III.19 discusses the employment structure in manufacturing segment. We find that in Agra, Kanpur and Puri the own or unpaid family workers account for 59.25 per cent, 55.29 per cent and to 75.53 per cent respectively. Next, in order of importance, comes to the casual workers, which account for 38.87 per cent in Agra, 43.14 per cent in Kanpur and to 24.47 per cent in Puri. Thus, unregistered manufacturing segment can be characterized as predominantly unpaid family workers absorbing activity. The employment of apprentice workers only comes to 1.88 per cent in Agra and to 1.57 per cent in Kanpur, while such workers in Puri are found to be non-existent. It is disappointing that the employment of regular workers is found to be absent in the manufacturing segment in Agra, Kanpur and Puri cities (table III.19).

Table III.19 : Employment Structure of Workers in Manufacturing Informal Activities :  
1999

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Agra			
			Employment structure			
			Owned	Casual	Apprentice	Total
1.	20&21	Food products	20 (90.91)	2 (9.09)	--	22 (100.00)
2.	23	Cotton textiles	10 (50.00)	8 (40.00)	2 (10.00)	20 (100.00)
3.	28	Paper, printing and allied	12 (54.55)	9 (40.91)	1 (4.54)	22 (100.00)
4.	29	Leather products	9 (45.00)	11 (55.00)	--	20 (100.00)
5.	30	Rubber and plastics	14 (70.00)	6 (30.00)	--	20 (100.00)
6.	31	Chemicals	12 (57.14)	9 (42.86)	--	21 (100.00)
7.	33	Basic metals	13 (56.52)	9 (39.13)	1 (4.35)	23 (100.00)
8.	34	Metal products	10 (50.00)	10 (50.00)	--	20 (100.00)
9.	35	Machinery	11 (52.38)	9 (42.86)	1 (4.76)	21 (100.00)
10.	36	Electrical machinery	9 (42.86)	12 (57.14)	--	21 (100.00)
11.	38	Other manufacturing	25 (75.76)	8 (24.24)	--	33 (100.00)
12.	39	Repairs	12 (54.55)	10 (45.45)	--	22 (100.00)
		Total	157 (59.25)	103 (38.87)	5 (1.88)	265 (100.00)

Table III.19 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Kanpur			
			Employment structure			
			Owned	Casual	Apprentice	Total
1.	20&21	Food products	13 (65.00)	7 (35.00)	--	20 (100.00)
2.	23	Cotton textiles	9 (45.00)	11 (55.00)	--	20 (100.00)
3.	28	Paper, printing and allied	11 (55.00)	8 (40.00)	1 (5.00)	20 (100.00)
4.	29	Leather products	18 (75.00)	5 (20.83)	1 (4.17)	24 (100.00)
5.	30	Rubber and plastics	14 (70.00)	6 (30.00)	--	20 (100.00)
6.	31	Chemicals	8 (40.00)	12 (60.00)	--	20 (100.00)
7.	33	Basic metals	10 (50.00)	10 (50.00)	--	20 (100.00)
8.	34	Metal products	10 (50.00)	9 (45.00)	1 (5.00)	20 (100.00)
9.	35	Machinery	9 (45.00)	11 (55.00)	--	20 (100.00)
10.	36	Electrical machinery	8 (40.00)	12 (60.00)	--	20 (100.00)
11.	38	Other manufacturing	18 (60.00)	11 (36.67)	1 (3.33)	30 (100.00)
12.	39	Repairs	13 (61.91)	8 (38.09)	--	21 (100.00)
		Total	141 (55.29)	110 (43.14)	4 (1.57)	255 (100.00)



Table III.19 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products	Puri			
			Employment structure			
			Owened	Casual	Apprentice	Total
1.	20&21	Food products	21 (75.00)	7 (25.00)	--	28 (100.00)
2.	23	Cotton textiles	2 (100.00)	--	--	2 (100.00)
3.	28	Paper, printing and allied	5 (71.43)	2 (28.57)	--	7 (100.00)
4.	29	Leather products	--	--	--	--
5.	30	Rubber and plastics	4 (80.00)	1 (20.00)	--	5 (100.00)
6.	31	Chemicals	1 (100.00)	--	--	1 (100.00)
7.	33	Basic metals	1 (50.00)	1 (50.00)	--	2 (100.00)
8.	34	Metal products	2 (100.00)	--	--	2 (100.00)
9.	35	Machinery	2 (100.00)	--	--	2 (100.00)
10.	36	Electrical machinery	2 (100.00)	--	--	2 (100.00)
11.	38	Other manufacturing	15 (71.43)	6 (28.57)	--	21 (100.00)
12.	39	Repairs	16 (72.73)	6 (27.27)	--	22 (100.00)
		Total	71 (75.53)	23 (24.47)	--	94 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

Similarly, within the non-manufacturing segment, as much as 62.56 per cent of workers in Agra, 53.06 pr cent in Kanpur and to 85.96 per cent in Puri are found as own or unpaid family workers. Casual workers come to 35.74 per cent in Agra, 46.94 per cent in Kanpur and to 14.04 per cent in Puri. In sharp contrast to above, the apprentice workers are found to be highly insignificant accounting for 1.70 per cent only in case of Agra. In Kanpur and Puri, such workers are found to be non-existent. Thus, like manufacturing segment, in the non-

manufacturing segment also, the unpaid family workers are found to be predominant followed by casual workers (table III.20).

Table III.20 : Employment Structure of Workers in Non-Manufacturing Informal Activities :  
1999

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Agra			
			Employment structure			
			Owned	Casual	Apprentice	Total
1.	60	Wholesale trade in food and miscellaneous manufactures	13 (65.00)	7 (35.00)	--	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	10 (50.00)	9 (45.00)	1 (5.00)	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	12 (60.00)	8 (40.00)	--	20 (100.00)
4.	66	Retail trade in textiles	12 (60.00)	7 (35.00)	1 (5.00)	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	14 (70.00)	6 (30.00)	--	20 (100.00)
6.	68	Retail trade in others	18 (78.26)	4 (17.39)	1 (4.35)	23 (100.00)
7.	69	Restaurants and hotels	12 (60.00)	8 (40.00)	--	20 (100.00)
8.	74	Storage and warehousing	12 (52.17)	10 (43.48)	1 (4.35)	23 (100.00)
9.	82	Real estate and business services	10 (50.00)	10 (50.00)	--	20 (100.00)
10.	96	Personal services	15 (62.50)	9 (37.50)	--	24 (100.00)
11.	99	Services not elsewhere classified	19 (76.00)	6 (24.00)	--	25 (100.00)
		Total	147 (62.56)	84 (34.74)	4 (1.70)	235 (100.00)

Table III.20 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Kanpur			
			Employment structure			
			Owened	Casual	Apprentice	Total
1.	60	Wholesale trade in food and miscellaneous manufactures	12 (60.00)	8 (40.00)	--	20 (100.00)
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	9 (45.00)	11 (55.00)	--	20 (100.00)
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	10 (50.00)	10 (50.00)	--	20 (100.00)
4.	66	Retail trade in textiles	10 (50.00)	10 (50.00)	--	20 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	11 (55.00)	9 (45.00)	--	20 (100.00)
6.	68	Retail trade in others	24 (58.54)	17 (41.46)	--	41 (100.00)
7.	69	Restaurants and hotels	9 (45.00)	11 (55.00)	--	20 (100.00)
8.	74	Storage and warehousing	11 (55.00)	9 (45.00)	--	20 (100.00)
9.	82	Real estate and business services	8 (40.00)	12 (60.00)	--	20 (100.00)
10.	96	Personal services	9 (45.00)	11 (55.00)	--	20 (100.00)
11.	99	Services not elsewhere classified	17 (70.83)	7 (29.17)	--	24 (100.00)
		Total	130 (53.06)	115 (46.94)	--	245 (100.00)

Table III.20 (contd....)

(Workers in No.)

Sl. No.	NIC code no	Non-manufacturing activities	Kanpur			
			Employment structure			
			Owned	Casual	Apprentice	Total
1.	60	Wholesale trade in food and miscellaneous manufactures	--	--	--	--
2.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	--	--	--	--
3.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	16 (66.67)	8 (33.33)	--	24 (100.00)
4.	66	Retail trade in textiles	6 (66.67)	3 (33.33)	--	9 (100.00)
5.	67	Retail trade in fuel and other household utilities and durable	12 (85.71)	2 (14.29)	--	14 (100.00)
6.	68	Retail trade in others	16 (69.57)	7 (30.43)	--	23 (100.00)
7.	69	Restaurants and hotels	5 (41.67)	7 (58.33)	--	12 (100.00)
8.	74	Storage and warehousing	1 (100.00)	--	--	1 (100.00)
9.	82	Real estate and business services	--	--	--	--
10.	96	Personal services	30 (57.69)	22 (42.31)	--	52 (100.00)
11.	99	Services not elsewhere classified	263 (97.05)	8 (2.95)	--	271 (100.00)
		Total	349 (85.96)	57 (14.04)	--	406 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

In all cities taken together, manufacturing segment employed 60.10 per cent of unpaid family workers; 38.44 per cent of casual workers and to 1.46 per cent of apprentice workers. In non-manufacturing, such workers come to 70.65 per cent, 28.89 per cent and to 0.46 per cent respectively. Aggregating both activities (manufacturing and non-manufacturing) in all

cities (Agra, Kanpur and Puri), unpaid family workers are found to be predominant (66.33 per cent) followed by casual workers (32.80 per cent). The apprentice workers, however, only come to 0.87 per cent. Thus, above empirical analysis recognizes the unpaid family workers followed by casual workers as predominant characteristics of the unregistered informal sector (table III.21).

Table III.21 : **Employment Structure of Workers in Unregistered Informal Activities : 1999**

(Workers in No.)

Sl. No.	NIC code no	Manufacturing products/non-manufacturing activities	All cities			
			Employment structure			
			Owned	Casual	Apprentice	Total
		<b>A. Manufacturing</b>				
1.	20&21	Food products	54 (77.14)	16 (22.86)	--	70 (100.00)
2.	23	Cotton textiles	21 (50.00)	19 (45.24)	2 (4.76)	42 (100.00)
3.	28	Paper, printing and allied	28 (57.14)	19 (38.78)	2 (4.08)	49 (100.00)
4.	29	Leather products	27 (61.37)	16 (36.36)	1 (2.27)	44 (100.00)
5.	30	Rubber and plastics	32 (71.11)	14 (28.89)	--	45 (100.00)
6.	31	Chemicals	21 (50.00)	21 (50.00)	--	42 (100.00)
7.	33	Basic metals	24 (53.33)	20 (44.45)	1 (2.22)	45 (100.00)
8.	34	Metal products	22 (52.38)	19 (45.24)	1 (2.38)	42 (100.00)
9.	35	Machinery	22 (51.16)	20 (46.51)	1 (2.33)	43 (100.00)
10.	36	Electrical machinery	19 (44.19)	24 (55.81)	--	43 (100.00)
11.	38	Other manufacturing	58 (69.05)	25 (29.76)	1 (1.19)	84 (100.00)
12.	39	Repairs	41 (63.08)	24 (36.92)	--	65 (100.00)
		<b>Sub-Total</b>	369 (60.10)	236 (38.44)	9 (1.46)	614 (100.00)



Table III.21 (contd....)

		<b>B. Non-Manufacturing</b>				
13.	60	Wholesale trade in food and miscellaneous manufactures	25 (62.50)	15 (37.50)	--	40 (100.00)
14.	63	Wholesale trade in all types of machinery and equipment including transport and electrical equipment	19 (47.50)	20 (50.00)	1 (2.50)	40 (10.00)
15.	65	Retail trade in food and food products, beverages, tobacco and intoxicants	38 (59.38)	26 (40.62)	--	64 (100.00)
16.	66	Retail trade in textiles	28 (57.14)	20 (40.82)	1 (2.04)	49 (100.00)
17.	67	Retail trade in fuel and other household utilities and durable	37 (68.52)	17 (31.48)	--	54 (100.00)
18.	68	Retail trade in others	58 (66.67)	28 (32.18)	1 (2.27)	87 (100.00)
19.	69	Restaurants and hotels	26 (50.00)	26 (50.00)	--	52 (100.00)
20.	74	Storage and warehousing	24 (54.55)	19 (43.18)	1 (2.27)	44 (100.00)
21.	82	Real estate and business services	18 (45.00)	22 (55.00)	--	40 (100.00)
22.	96	Personal services	54 (56.25)	42 (43.75)	--	96 (100.00)
23.	99	Services not elsewhere classified	299 (93.44)	21 (6.56)	--	320 (100.00)
		Sub-Total	626 (70.65)	256 (28.89)	4 (0.46)	886 (100.00)
		Grand-Total	995 (66.33)	492 (32.80)	13 (0.87)	1500 (100.00)

Note : Figures under parentheses denote percentages to total workers in each activity.

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

### VIII. Summing up

Present chapter briefly examines the principal social characteristics of unregistered informal sector workers. The general finding emerging from the study suggests that a majority of workers (21.27 per cent) is youngsters, which belong to 26-30 years of age. Also, generally

a majority of workers is male, which has come from hindu religion. Within the hindu, a majority of workers has come from SC/ST community. Generally, workers are found married and illiterates. It is remarkable observation that most of workers (66.33 per cent) are unpaid family workers, while the casual and apprentice workers come to 32.80 and to 0.87 per cent respectively. Thus, unregistered informal sector based on the sample of 1500 workers in three referred cities, may be characterized as absorber of male, young, illiterate and unpaid family workers, who owing to lack of alternate job opportunity have entered in this sector for continuance of their livelihood at subsistence level. So as to substantiate the social characteristics, it would be pertinent to examine empirically the working and housing conditions of the unregistered informal sector workers. These aspects have been attempted in next chapter IV, of the present study.

## CHAPTER IV

### WORKING CONDITIONS AND HOUSING CHARACTERISTICS

An other important dimension of the present study is the in-depth empirical examination of the working conditions and the housing characteristics of workers engaged in unregistered informal sector. The objective of the present chapter, therefore, is the empirical examination of : (i) distance between residence and the working place; (ii) mode of transportation; (iii) conditions of working place; and (iv) housing characteristics of workers in Agra, Kanpur and Puri cities in manufacturing and non-manufacturing segments of unregistered informal sector. Such an empirical analysis has been considered helpful and rewarding for improving the working and housing conditions of workers engaged in unregistered informal sector.

#### I. Distance from Residence to Working Place for Unregistered Informal Sector Workers

The distance from residence to working place is described in table IV.1 in respect of four categories, such as, (i) upto 2 kms., (ii) 3 to 5, (iii) 6 to 8, and (iv) more than 8 kms. In case of manufacturing segment, the distance between the residence and the working place comes upto 2 kms. in all cities. Empirical evidence suggests that 50.57 per cent of workers in Agra, 67.45 per cent in Kanpur, 87.23 per cent in Puri and to 63.19 per cent of workers in all cities are found living upto 2 kms. of distance from residence to working place. The corresponding workers living from 3 to 5 kms. of distance are found to be 31.69 per cent in Agra, 25.88 per cent in Kanpur, 12.77 per cent in Puri and to 26.38 per cent in all cities. Similarly, workers

living between 6 to 8 kms. of distance are found to be 13.21 per cent in Agra, 3.14 per cent in Kanpur and to 7 per cent in all cities. Also, workers living more than 8 kms. of distance are found to be 4.53 per cent in Agra, 3.53 per cent in Kanpur and to 3.43 per cent in all cities. The above empirical analysis thus suggests that a majority of unregistered manufacturing informal sector workers in all cities has stayed upto 2 kms. of distance from residence to working place (table IV.1).

Table IV.1 : Distance from Residence to Working Place for Unregistered Manufacturing Informal Sector Workers : 1999

Distance (km.)	Workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Upto 2	134	50.57	172	67.45	82	87.23	388	63.19
3 to 5	84	31.69	66	25.88	12	12.77	162	26.38
6 to 8	35	13.21	8	3.14	--	--	43	7.00
More than 8	12	4.53	9	3.53	--	--	21	3.43
Total	265	100.00	255	100.00	94	100.00	614	100.00

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

The distance from residence to working place for the workers employed in unregistered non-manufacturing informal segment has been described in table IV.2. The finding emerged in the manufacturing segment has also been reinforced even in the case of non-manufacturing segment. For example, workers living upto 2 kms. of distance are the largest, being 53.62 per cent in Agra, 73.47 per cent in Kanpur, 87.93 per cent in Puri and to 74.83 per cent in all cities. Next to this, comes the workers living between 3 to 5 kms. of distance, who are found to be 31.91 per cent in Agra, 20 per cent in Kanpur, 7.64 per cent in Puri and to 17.49 per cent in all cities. The corresponding figure for workers living between 6 to 8 kms. and over 8

kms. are found to be 9.79 per cent and 4.68 per cent in Agra; 5.31 per cent and 1.22 per cent in Kanpur; 0.25 per cent and 4.18 per cent in Puri; and to 4.18 per cent and to 3.50 per cent in all cities. It emerges that a majority of workers in referred cities has been residing upto 2 kms. of distance from the dwelling place to the place of working (table IV.2).

Table IV.2 : Distance from Residence to Working Place for Unregistered Non-Manufacturing Informal Sector Workers : 1999

Distance (km.)	Workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Upto 2	126	53.62	180	73.47	357	87.93	663	74.83
3 to 5	75	31.91	49	20.00	31	7.64	155	17.49
6 to 8	23	9.79	13	5.31	1	0.25	37	4.18
More than 8	11	4.68	3	1.22	17	4.18	31	3.50
Total	235	100.00	245	100.00	406	100.00	886	100.00

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

In manufacturing and non-manufacturing total, a majority of workers in Agra (52 per cent), Kanpur (70.40 per cent), Puri (87.80 per cent) and in all cities (70.07 per cent) has been found living upto 2 kms. of distance from the residence to their working place. Workers living from 3 to 5 kms. of distance are found to be 31.80 per cent in Agra, 23 per cent in Kanpur, 8.60 per cent in Puri and to 21.13 per cent in all cities. The respective workers living between 6 to 8 kms. of distance are found to be 11.60 per cent in Agra, 4.20 per cent in Kanpur, 0.20 per cent in Puri and to 5.33 per cent in all cities; and those living beyond 8 kms. of distance are found to be 4.60 per cent in Agra, 2.40 per cent in Kanpur, 3.40 per cent in Puri and to 3.47 per cent in all cities taken together (table IV.3).



Table IV.3 : Distance from Residence to Working Place for Unregistered Informal Sector Workers : 1999

Distance (km.)	Workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Upto 2	260	52.00	352	70.40	439	87.80	1051	70.07
3 to 5	159	31.80	115	23.00	43	8.60	317	21.13
6 to 8	58	11.60	21	4.20	1	0.20	80	5.33
More than 8	23	4.60	12	2.40	17	3.40	52	3.47
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

## II. Mode of Transportation

As the distance between the dwelling place and the place of working is the marginal being upto 2 kms., one expects the mode of transport would likely to be cheapest. It is examined in terms of number of workers using transport in the form of (i) bicycle, (ii) bus; (iii) scooter/moped, (iv) foot, and (v) other mode of transport in the manufacturing and non-manufacturing segments.

Within the manufacturing segment in Agra, the major mode of transport is found to be the bicycle, which is used by 39.25 per cent of workers to reach at the working place from their residential places. The other mode of transport, in order of preference, comes cost less, i.e. by foot, being used by 32.07 per cent of workers. Workers using bus have been found to be 20 per cent and scooter/moped to 8.68 per cent. Thus, bicycle emerges as major mode of transport in Agra city for the unregistered manufacturing informal sector workers.

In Kanpur and Puri cities, the major mode of transport is found to be cost-less, i.e. foot used by 43.92 per cent and to 75.53 per cent of workers respectively. Next to this comes the bicycle, which is used by 36.47 per cent of workers in Kanpur and to 19.15 per cent of workers in Puri city. Within the manufacturing segment in all cities together, the major mode of transport is found to be the cost-less, i.e. foot, used by 43.65 per cent of workers. Next to this come the bicycle, which is used by 35.02 per cent of workers. Thus, within the unregistered manufacturing segment, the major mode of transport is found to be the foot followed by bicycle (table IV.4).

Table IV.4 : Mode of Transport by Manufacturing Informal Workers from Residence to Working Place : 1999

Mode of transport	Workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Bicycle	104	39.25	93	36.47	18	19.15	215	35.02
Bus	53	20.00	21	8.24	1	1.06	75	12.21
Scooter/moped	23	8.68	28	10.98	--	--	51	8.31
Foot	85	32.07	112	43.92	71	75.53	268	43.65
Others	--	--	1	0.39	4	4.26	5	0.81
Total	265	100.00	255	100.00	94	100.00	614	100.00

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

A similar finding has also been reinforced more forcefully in the context of non-manufacturing workers. As much as 30.64 per cent of workers in Agra, 45.31 per cent in Kanpur and to 83.99 per cent in Puri have used the cost-less mode of transport, i.e. foot. Next, in order of preference, comes the bicycle, which is used by 34.29 per cent of workers in Kanpur and to 9.61 per cent in Puri. In Agra, the bicycle emerges as the most important mode of transport, which has been used by the 42.55 per cent of workers. Thus, bicycle in Agra and

foot in Kanpur and Puri has emerged as major mode of transport used by a majority of workers for reaching at the working place from the place of residence. In the non-manufacturing segment in all cities, the major mode of transport is the foot followed by bicycle used by 59.15 per cent and to 25.17 per cent of workers respectively (table IV.5).

Table IV.5 : **Mode of Transport by Unregistered Non-Manufacturing Informal Workers from Residence to Working Place : 1999**

Mode of transport	Workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Bicycle	100	42.55	84	34.29	39	9.61	223	25.17
Bus	40	17.02	25	10.20	2	0.49	67	7.56
Scooter/moped	22	9.36	21	8.57	--	--	43	4.85
Foot	72	30.64	111	45.31	341	83.99	524	59.15
Others	1	0.43	4	1.63	24	5.91	29	3.27
Total	235	100.00	145	100.00	406	100.00	886	100.00

Source : Based on the information collected from 886 workers in Agra, Kanpur and Puri cities.

In the total of manufacturing and non-manufacturing activities, the major mode of transport is found to be the bicycle and foot in Agra; foot and bicycle in Kanpur and Puri cities. In total of all activities and cities, the major mode of transport has been found to be the foot followed by the bicycle, being used by the 52.79 per cent and to 29.20 per cent of workers respectively. The other mode of transport is found to be the (i) bus; (ii) scooter/moped; and (iii) others, which are being used by 9.47 per cent, 6.27 per cent and to 2.27 per cent of workers respectively (table IV.6). Thus, foot followed by the bicycle are found as the major mode of transport used by the majority of unregistered informal sector workers in cities under consideration.

Table IV.6 : Mode of Transport by Unregistered Informal Workers from Residence to Working Place : 1999

Mode of transport	Workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Bicycle	204	40.80	177	35.40	57	11.40	438	29.20
Bus	93	18.60	46	9.20	3	0.60	142	9.47
Scooter/moped	45	9.00	49	9.80	--	--	94	6.27
Foot	157	31.40	223	44.60	412	82.40	792	52.79
Others	1	0.20	5	1.00	28	5.60	34	2.27
Total	500	100.00	500	100.00	500	100.00	500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

### III. Conditions of Working Place

Another important aspect of the study is the empirical examination of conditions of establishment of unregistered informal sector workers. It has been examining in terms of : (i) adequate/inadequate water facility, (ii) proper/improper ventilation, (iii) sufficient/non-sufficient bathroom facility, (iv) whether or not sufficient place of working, and (v) whether or not water drainage, and water logging problems. These aspects have been portrayed in table IV.7 in case of unregistered manufacturing informal sector workers.

Within the manufacturing segment in Agra, of the total workers, 88.68 per cent felt that work place had adequate water facility; 90.94 per cent felt that proper ventilation was available; and to 90.19 per cent of workers felt that work place was sufficient for working. However, 83.40 per cent of workers felt that bathroom facility was inadequate. Similarly,

50.57 per cent of workers realized the existence of water drainage problem, whereas, 59.62 per cent of workers expressed the absence of water logging problem. Thus, in the manufacturing segment in Agra, lack of bathroom facility, water drainage and water logging problems have been recognized on a priority basis.

Table IV.7 : Condition of Working Place about Unregistered Manufacturing Informal Establishments : 1999

(Workers in No.)

Working condition	Cities								
	Agra			Kanpur			Puri		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Adequate water facility	235 (88.68)	30 (11.32)	265 (100.00)	234 (91.76)	21 (8.24)	255 (100.00)	90 (95.74)	4 (4.26)	94 (100.00)
Proper ventilation	241 (90.94)	24 (9.06)	265 (100.00)	238 (93.33)	17 (6.67)	255 (100.00)	91 (96.81)	3 (3.19)	94 (100.00)
Bathroom	44 (16.60)	221 (83.40)	265 (100.00)	85 (33.33)	170 (66.67)	255 (100.00)	44 (46.81)	50 (53.19)	94 (100.00)
Sufficient place of working	239 (90.19)	26 (9.81)	265 (100.00)	220 (86.27)	35 (13.73)	255 (100.00)	57 (60.64)	37 (39.36)	94 (100.00)
Water drainage	134 (50.57)	131 (49.43)	265 (100.00)	171 (67.06)	84 (32.94)	255 (100.00)	67 (71.28)	27 (28.72)	94 (100.00)
Water logging	107 (40.38)	158 (59.62)	265 (100.00)	37 (14.51)	218 (85.49)	255 (100.00)	24 (25.53)	70 (74.47)	94 (100.00)

Note : Figures in parentheses show the percentages to total.

Source : Based on the information collected from 614 workers in Agra, Kanpur and Puri cities.

Within the manufacturing segment in Kanpur, 91.76 per cent, 93.33 per cent and to 86.27 per cent of workers feel that there exists adequate water facility, proper ventilation and the sufficient place for working. On the contrary, 66.67 per cent, 67.06 per cent and to 85.49 per cent of workers feel the lack of bathroom facility, presence of water drainage but the absence of water logging problem. In Puri, 95.74 per cent, 96.81 per cent and to 60.64 per cent of workers feel that there are adequate water facility, proper ventilation and sufficient place for working. In sharp contrast to above, 53.19 per cent, 71.28 per cent and to 74.47 per cent of workers expressed the lack of bathroom facility, presence of water drainage but



absence of water logging problem respectively. Thus, within the manufacturing segment in all cities, lack of bathroom facility has emerged as main constraint for unregistered manufacturing informal sector units/establishments (table IV.7).

Within the non-manufacturing segment in Agra, 89.36 per cent, 92.34 per cent and to 91.91 per cent of workers feel that there exists adequate water facility, ventilation and the sufficient place for working, whereas, 81.70 per cent and to 56.17 per cent of workers have felt the lack of bathroom facility but the absence of water logging problems. Water drainage problem has, however, been felt by the 45.11 per cent of workers. Thus, lack of bathroom facility has been recognized as critical problem for the non-manufacturing units/establishments in Agra city (table IV.8).

Table IV.8 : **Condition of Working Place about Unregistered Non-Manufacturing Informal Establishments : 1999**

(Workers in No.)

Working condition	Cities								
	Agra			Kanpur			Puri		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Adequate water facility	210 (89.36)	25 (10.64)	235 (100.00)	214 (87.35)	31 (12.65)	245 (100.00)	129 (82.69)	27 (17.31)	156 (100.00)
Proper ventilation	217 (92.34)	18 (7.66)	235 (100.00)	218 (88.98)	27 (11.02)	245 (100.00)	137 (87.82)	19 (12.18)	156 (100.00)
Bathroom	43 (18.30)	192 (81.70)	235 (100.00)	106 (43.27)	139 (56.73)	245 (100.00)	44 (28.21)	112 (71.79)	156 (100.00)
Sufficient place of working	216 (91.91)	19 (8.09)	235 (100.00)	223 (91.02)	22 (8.98)	245 (100.00)	85 (54.49)	71 (45.51)	156 (100.00)
Water drainage	106 (45.11)	129 (54.89)	235 (100.00)	160 (65.31)	85 (34.69)	245 (100.00)	95 (60.90)	61 (39.10)	156 (100.00)
Water logging	103 (43.83)	132 (56.17)	235 (100.00)	36 (14.69)	209 (85.31)	245 (100.00)	39 (25.00)	117 (75.00)	156 (100.00)

Note : Figures in parentheses show the percentages to total.

Source : Based on the information collected from 636 workers in Agra, Kanpur and Puri cities.

A similar type of finding has also been revealed in Kanpur city as well. As much as 87.35 per cent, 88.98 per cent, 91.02 per cent and to 65.31 per cent of workers feel the

adequate water facility, ventilation, sufficient place for working but the existence of water drainage problem. However, 56.73 per cent and to 85.31 per cent of workers feel the lack of bathroom facility but the absence of water logging problem. Thus, lack of bathroom facility in association with water drainage have emerged as critical problems faced by the unregistered non-manufacturing informal sector units/establishments in Kanpur city (table IV.8).

In Puri, 82.69 per cent, 87.82 per cent, 54.49 per cent and to 75.00 per cent of workers feel the adequate water facility, proper ventilation, sufficient place for working and absence of water logging problems. In contrast to above, 71.79 per cent and to 60.90 per cent of workers felt the lack of bathroom facility and the presence of water drainage problem respectively. It appears that lack of bathroom facility and water drainage are the serious problems faced by the non-manufacturing informal sector units/establishments (table IV.8).

In unregistered manufacturing informal economic activities in all cities together, we find that 91.04 per cent, 92.83 per cent, 84.04 pr cent, 72.64 per cent and to 60.59 per cent of workers feel the adequate supply of water, proper ventilation, sufficient place for working, absence of water logging, but the presence of water drainage problem respectively. However, 71.82 per cent of workers feel the lack of bathroom facility. Thus, lack of bathroom facility emerges as most crucial problem for the unregistered manufacturing informal sector units/establishments (table IV.9).

Within the unregistered non-manufacturing informal segment in all cities, 86.95 per cent, 89.94 per cent, 82.39 per cent and to 72.01 per cent of workers feel the adequate supply of water, ventilation, sufficient space for working and the absence of water logging problem respectively. However, as much as 56.76 per cent and to 69.65 per cent of workers expressed the problem arising respectively on account of water drainage and the lack of bathroom

facility. Thus, in the non-manufacturing segment, lack of bathroom and water drainage have been felt by the majority of unregistered non-manufacturing informal sector workers (table IV.9).

Table IV.9 : Condition of Working Place about Unregistered Informal Sector Establishments : 1999

(Workers in No.)

Working condition	Economic activities								
	Manufacturing			Non-manufacturing			Total		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Adequate water facility	559 (91.04)	55 (8.96)	614 (100.00)	553 (86.95)	83 (13.05)	636 (100.00)	1112 (88.96)	138 (11.04)	1250 (100.00)
Proper ventilation	570 (92.83)	44 (7.17)	614 (100.00)	572 (89.94)	64 (10.06)	636 (100.00)	1142 (91.36)	108 (8.64)	1250 (100.00)
Bathroom	173 (28.18)	441 (71.82)	614 (100.00)	193 (30.35)	443 (69.65)	636 (100.00)	366 (29.28)	884 (70.72)	1250 (100.00)
Sufficient place of working	516 (84.04)	98 (15.96)	614 (100.00)	524 (82.39)	112 (17.61)	636 (100.00)	1040 (83.20)	210 (16.80)	1250 (100.00)
Water drainage	372 (60.59)	242 (39.41)	614 (100.00)	361 (56.76)	275 (43.24)	636 (100.00)	733 (58.64)	517 (41.36)	1250 (100.00)
Water logging	168 (27.36)	446 (72.64)	614 (100.00)	178 (27.99)	458 (72.01)	636 (100.00)	346 (27.68)	904 (72.32)	1250 (100.00)

Note : Figures in parentheses show the percentages to total.

Source : Based on the information collected from 1250 workers in Agra, Kanpur and Puri cities.

In all cities and in total of all economic activities, we find that 88.96 per cent, 91.36 per cent, 83.20 per cent and to 72.32 per cent of workers feel the adequate water facility, proper ventilation, sufficient place for working and the absence of water logging problem respectively. However, as much as 70.72 per cent and to 58.64 per cent of workers are of the view that there exists the lack of bathroom facility and the presence of water drainage problem respectively. This part of the empirical analysis, therefore, underlines the lack of bathroom and water drainage problem as critical constraint for the informal sector units/establishments (table IV.9).

#### IV. Housing Characteristics of Unregistered Informal Sector Workers

##### IV.1 Ownership and Structure of Houses

Table IV.10 portrays the housing characteristics of unregistered informal sector workers in Agra, Kanpur and Puri cities. Among the various housing characteristics, we may first describe the ownership and structure of houses. We find that, of the 500 households, 60.40 per cent in Agra, 69.40 per cent in Kanpur, 88.20 per cent in Puri and to 72.67 per cent in all cities have owned ancestral houses. Households having self-constructed houses come to 11.20 per cent in Agra, 3 per cent in Kanpur, 1.40 per cent in Puri and to 5.20 per cent in all cities taken together. Similarly, households having rented houses come to 25 per cent in Agra, 26.60 per cent in Kanpur, 10 per cent in Puri and to 20.53 per cent in all cities (table IV.10).

Table IV.10 : Ownership and Structure of Houses for Informal Sector Households: 1999

Ownership/ structure of houses	Households in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
<b>A. Ownership of house</b>								
Rented	125	25.00	133	26.60	50	10.00	308	20.53
Self-constructed	56	11.20	15	3.00	7	1.40	78	5.20
Ancestral	302	60.40	347	69.40	441	88.20	1090	72.67
Others	17	3.40	5	1.00	2	0.40	24	1.60
Total	500	100.00	500	100.00	500	100.00	1500	100.00
<b>B. Structure of house</b>								
Kutcha	40	8.00	5	1.00	83	16.60	128	8.53
Semi-kutcha	84	16.80	72	14.40	156	31.20	312	20.80
Pucca	376	75.20	423	84.60	261	52.20	1060	70.67
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

As far the structure of houses, we find that 75.20 per cent of households in Agra, 84.60 per cent in Kanpur, 52.20 per cent in Puri and to 70.67 per cent in all cities have the owned pucca houses. Households living in kutcha houses are found to be 8 per cent in Agra, 1 per cent in Kanpur, 16.60 per cent in Puri and to 8.53 per cent in all cities. Similarly, households residing in semi-kutcha houses are found to be 16.80 per cent in Agra, 14.40 per cent in Kanpur, 31.20 per cent in Puri and to 20.80 per cent in all cities. Thus, a majority of households has owned pucca ancestral houses (table IV.10). The average build up area of a house is worked out to be 141.08 sq. ft. in Agra, 117.05 sq. ft. in Kanpur, 76.20 sq. ft. in Puri and to 115.31 sq. ft. in all cities total.

Table IV.11 classifies the houses by the kinds of locations, such as, (i) slum, (ii) chawl, (iii) flat in housing society, (iv) independent tenement, and (v) others, where households are residing. A close examination of table IV.11 tends to suggest that in Agra, a majority of households has been residing in independent tenement (46.40 per cent). Households living in slum comes to 8 per cent, chawl 31.60 per cent, flat in housing society 10.60 per cent and in others to 3.40 per cent. In Kanpur, however, this is not found applicable. A majority of households is found residing in chawl (53.60 per cent), followed by independent tenement (37.80 per cent). Households living in slum, flat in housing society and other types of housing have been recorded to be 1 per cent, 6.80 per cent and to 0.80 per cent respectively. In Puri, a majority of households has been found living in chawl (53.40 per cent); 28.40 per cent in independent tenement; 16.60 per cent in slum; 1.20 per cent in flat in housing society; and to 0.40 per cent in other types of housing.



Table IV.11 : Kinds of Locations of Housing Occupied by Informal Sector Households: 1999

Kinds of housing	Workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Slum	40	8.00	5	1.00	83	16.60	128	8.53
Chawl	158	31.60	268	53.60	267	53.40	693	46.21
Flat in housing society	53	10.60	34	6.80	6	1.20	93	6.20
Independent tenement	232	46.40	189	37.80	142	28.40	563	37.53
Others	17	3.40	4	0.80	2	0.40	23	1.53
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

Thus, a majority of households in Agra lived in independent tenement, while in Kanpur and Puri in chawls. In all cities together, a majority of households (46.21 per cent) lived in chawls, followed by independent tenement (37.53 per cent). Households living in slum come to 8.53 per cent; flat in housing society 6.20 per cent; and in other types of housing to 1.53 per cent. It seems to suggest that chawl is the main residential location for the unregistered informal sector workers (table IV.11).

#### **IV.2 Availability of Rooms, Separate Kitchen and Latrine Facilities**

As far as the availability of rooms, a majority of households in Agra (38.60 per cent) is found living in two room houses. Households living in one room, three rooms, and four and more rooms are reported to be 30.60 per cent, 19.60 per cent and to 11.20 per cent respectively. Like Agra, a majority of households in Kanpur (57.20 per cent) is found living in two room accommodation. Households living in one room, three rooms and to four and more

rooms are reported to be 28 per cent, 12.20 per cent and to 2.60 per cent respectively. In sharp contrast to above, a majority of households (48.20 per cent) in Puri is found living in one room accommodation. Households living in two rooms, three room and four and more rooms accommodation have been reported to be 41.20 per cent, 7.20 per cent and to 3.40 per cent respectively. Thus, two rooms accommodation in Agra and Kanpur and one room accommodation in Puri have been underlined as preponderant characteristic of housing for the unregistered informal sector households (table IV.12).

Table IV.12 : Availability of Rooms and Separate Kitchen Facility for the Unregistered Informal Sector Households: 1999

Particulars	Households in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
<b>A. Availability of rooms</b>								
One	153	30.60	140	28.00	241	48.20	534	35.60
Two	193	38.60	286	57.20	206	41.20	685	45.67
Three	98	19.60	61	12.20	36	7.20	195	13.00
Four and above	56	11.20	13	2.60	17	3.40	86	5.73
Total	500	100.00	500	100.00	500	100.00	1500	100.00
<b>B. Separate kitchen facility</b>								
Yes	159	31.80	183	36.60	102	20.40	444	29.60
No	341	68.20	317	63.40	398	79.60	1056	70.40
Total	500	100.00	500	100.00	500	100.00	1500	100.00
<b>C. Latrine facility</b>								
Open field	83	16.60	44	8.80	252	50.40	374	25.27
Service	136	27.20	140	28.00	49	9.80	325	21.67
Flush system	281	56.20	316	63.20	199	39.80	796	53.06
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

In all cities together, a majority of households (45.67 per cent) is found living in two room houses. Households living in one room, three rooms and four and more rooms have been reported to be 35.60 per cent, 13 per cent and to 5.73 per cent respectively. Thus, two rooms accommodation have been described as the major dwellings for the households in unregistered informal sector in all cities under consideration (table IV.12).

Also, 68.20 per cent in Agra, 63.40 per cent in Kanpur, 79.60 per cent in Puri and to 70.40 per cent of houses in all cities do not have separate kitchen facility. However, 31.80 per cent of houses in Agra, 36.60 per cent in Kanpur, 20.40 per cent in Puri and to 29.60 per cent in all cities are found having separate kitchen facility. Thus, a majority of houses does not consist of separate kitchen facility, where unregistered informal sector households have been residing (table IV.12). As far as the latrine facility, a majority of households (56.20 per cent) in Agra, 63.20 per cent in Kanpur are found having flush system, while 50.40 per cent of households in Puri are found using open field for this purpose. In all cities together, 53.06 per cent of households are found using flush system. Households using open field and service facility for this purpose have been reported to be 25.27 per cent and to 21.67 per cent respectively. It is, therefore, satisfying to note that flush system has commonly been used for this purpose (table IV.12).

#### **IV.3 Garbage Disposal, Water Drainage, Sources for Lighting and Drinking Water**

Of the total households, 68.80 per cent in Agra, 73.20 per cent in Kanpur, 92.40 per cent in Puri and to 78.13 per cent in all cities have reportedly disposed off the garbage nearby their houses. However, households reporting the disposal of garbage away from their houses are 31.20 per cent in Agra, 26.80 per cent in Kanpur, 7.60 per cent in Puri and to 21.87 per cent in all cities. It suggests that garbage is generally disposed off nearby the houses of the

households. As for the water drainage, 79.60 per cent of households in Agra, 77.00 per cent in Kanpur, 96.20 per cent in Puri and to 84.27 per cent in all cities have reported water at open/running condition. Those households reporting water as closed are found to be 20.40 per cent in Agra, 22.80 per cent in Kanpur, 3.40 per cent in Puri and to 15.53 per cent in all cities. It emerges that water is generally at open/running condition (table IV.13).

As far the sources of lighting, 82.20 per cent of households in Agra, 91.00 per cent in Kanpur, 50.60 per cent in Puri and to 74.60 per cent in all cities are found using electricity as a major source of lighting. As compared to this, 17.80 per cent of households in Agra, 9 per cent in Kanpur, 49.40 per cent in Puri and to 25.40 per cent in all cities are found using oil lamp/lantern as a main source of lighting. Thus, electricity followed by oil lamp/lantern are found as main sources for lighting (table IV.13).

Table IV.13 : **Garbage Disposal, Water Drainage and Source of Lighting: 1999**

Particulars	Responses of workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
<b>A. Garbage disposal</b>								
Nearby the house	344	68.80	366	73.20	462	92.40	1172	78.13
Away from the house	156	31.20	134	26.80	38	7.60	328	21.87
Total	500	100.00	500	100.00	500	100.00	1500	100.00
<b>B. Water drainage</b>								
Open/stagnant	--	--	1	0.20	2	0.40	3	0.20
Open/running	398	79.60	385	77.00	481	96.20	1264	84.27
Closed	102	20.40	114	22.80	17	3.40	233	15.53
Total	500	100.00	500	100.00	500	100.00	1500	100.00
<b>C. Sources of lighting</b>								
Oil lamp/lantern	89	17.80	45	9.00	247	49.40	381	25.40
Electricity	411	82.20	455	91.00	253	50.60	1119	74.60
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

With regard to the sources of drinking water, 51 per cent of households in Agra and to 50.60 per cent in Puri have been found using water for drinking from the tap. Next to this comes the government owned hand pumps, from where 35 per cent of households in Agra and to 35.80 per cent in Puri have used the water for drinking. The households using water from the privately owned hand pumps are found to be 13 per cent in Agra and to 11.20 per cent in Puri. In Kanpur, the main source of drinking water is found to be the government owned hand pump and tap as 49 per cent and to 43.60 per cent of households have used the water for drinking from these sources. In all cities together, a majority of households (48.40 per cent) has used tap as the main source of water for drinking. Households using government owned hand pump as the main source of drinking water has been reported to be the 39.93 per cent. Thus, tap in Agra, Puri and in all cities, while government owned hand pump in Kanpur are found as the main sources of water for drinking (table IV.14).

Table IV.14 : Sources of Drinking Water for Informal Sector Households: 1999

Source of drinking water	Responses of workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Pond/tank	--	--	--	--	--	--	--	--
Well	5	1.00	2	0.40	12	2.40	19	1.27
Hand pump (government)	175	35.00	245	49.00	179	35.80	599	39.93
Hand pump (private)	65	13.00	35	7.00	56	11.20	156	10.40
Tap	255	51.00	218	43.60	253	50.60	726	48.40
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.



#### IV.4 Fuels for Cooking

Table IV.15 portrays the kinds of fuels used for cooking purpose in selected cities. It is discovered that 56.60 per cent of households in Agra, 53.60 per cent in Kanpur and to 37.47 per cent in all cities have used gas for cooking. In Puri, 54 per cent of households used firewood as the main fuel for cooking. Such households in Agra, Kanpur and in all cities are found to be 19.60 per cent, 13.40 per cent and to 29 per cent respectively. Households using kerosene as a main fuel for cooking are found to be 19.20 per cent in Agra, 31.40 per cent in Kanpur, 41.20 per cent in Puri and to 30.60 per cent in all cities. Thus, it turns out that gas in Agra and Kanpur, firewood in Puri and gas in all cities are used as the main fuels for cooking (table IV.15).

Table IV.15 : Fuels for Cooking by Informal Sector Households: 1999

Fuel for cooking	Responses of workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Waste	4	0.80	--	--	13	2.60	17	1.13
Coal	16	3.20	8	1.60	--	--	24	1.60
Firewood	98	19.60	67	13.40	270	54.00	435	29.00
Kerosene	96	19.20	157	31.40	206	41.20	459	30.60
Gas	283	56.60	268	53.60	11	2.20	562	37.47
Electricity	3	0.60	--	--	--	--	3	0.20
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

#### IV.5 Sharing Pattern of Water, Sanitary and Electricity Facility

Table IV.16 describes the sharing pattern of water, sanitary and the electricity facility by the households in Agra, Kanpur, Puri and in all cities. We find that 66 per cent of households

in Agra, 70.20 per cent in Kanpur, 79.40 per cent in Puri and to 71.87 per cent in all cities are found sharing the water with more than one households. Households wharing water have been reported to be 34 per cent in Agra, 29.80 per cent in Kanpur, 20.60 per cent in Puri and to 28.13 per cent in all cities. Thus, sharing of water by more than one household is found as a general practice in the cities under consideration (table IV.16).

As far the sanitary facility, 53.40 per cent of households in Agra, 56.80 per cent in Kanpur, 44.60 per cent in Puri and to 58.27 per cent in all cities have been reported using sanitary facility independently. Those households sharing sanitary facility have been reported to be 46.60 per cent in Agra, 43.20 per cent in Kanpur, 35.40 per cent in Puri and to 41.73 per cent in all cities. Thus, the independent use of sanitary facility has generally been found in existence in cities under reference (table IV.16).

Table IV.16 : **Sharing of Water, Sanitary and Electricity by the Informal Sector Households: 1999**

Particulars	Responses of workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
<b><u>A. Water facility</u></b>								
Independent	170	34.00	149	29.80	103	20.60	422	28.13
Shared	330	66.00	351	70.20	397	79.40	1078	71.87
Total	500	100.00	500	100.00	500	100.00	1500	100.00
<b><u>B. Sanitary facility</u></b>								
Independent	267	53.40	284	56.80	323	44.60	874	58.27
Shared	233	46.60	216	43.20	177	35.40	626	41.73
Total	500	100.00	500	100.00	500	100.00	1500	100.00
<b><u>C. Electricity</u></b>								
Yes	411	82.20	455	91.00	253	50.60	1119	74.60
No	89	17.80	45	9.00	247	49.40	381	25.40
Total	500	100.00	500	100.00	500	100.00	1500	100.00

Source : Based on the information collected from 1500 workers in Agra, Kanpur and Puri cities.

More or less, a similar finding has also emerged in case of use pattern of electricity. As much as 82.20 per cent of households in Agra, 91 per cent in Kanpur, 50.60 per cent in Puri and to 74.60 per cent in all cities have been reported using electricity independently. Households reporting the share of electricity with more than one household have been found to be 17.80 per cent in Agra, 9 per cent in Kanpur, 49.40 per cent in Puri and to 25.40 per cent in all cities. Thus, independent use of electricity is a common practice in all cities under consideration (table IV.16).

#### **IV.6 Concluding Observations**

The ongoing chapter examines the working conditions and housing characteristics of workers employed in unregistered informal sector in Agra, Kanpur and Puri cities. The general finding suggests that workers generally live upto 2 kms. of distance from their residence to the place of working. This is found true in Agra, Kanpur, Puri and in all cities in unregistered manufacturing and non-manufacturing informal segments. Since the distance between dwelling place and the working place is quite marginal, generally workers use to reach at the working place either by foot or by bicycle to carry out the unregistered manufacturing and non-manufacturing informal economic activities.

As far the condition of the working place, manufacturing and non-manufacturing establishments are found having adequate water facility, ventilation and enough place for working. These establishments have, however, generally suffered on account of lack of bathroom facility and water drainage problems. It is also discovered that a majority of households has owned ancestral pucca houses. The average build up area of a house has generally been reported to be 141.08 sq.ft. in Agra, 117.05 sq.ft. in Kanpur, 76.20 sq.ft. in Puri and to 115.31 sq.ft. all cities. Also, a majority of houses is found located in chawl. Thus,

chawl is identified as an important location where houses of unregistered informal workers are constructed.

Generally, households live in two rooms accommodation in Agra and Kanpur, while in one room accommodation in Puri. In all cities, two rooms accommodation has generally been used for dwelling, which do not generally consist of separate kitchen facility. Flush system based latrine facility is found generally used by the households in Agra and Kanpur, while open field in Puri. Thus, flush system has generally been used for latrine facility. Garbage is generally disposed off nearby the houses of the households. Generally, water is found at open and running condition. Electricity has been used as a major source of lighting and tap as the main source of water for drinking. Also, gas in Agra and Kanpur and firewood in Puri are found as main fuels for cooking. It is further explored that water for drinking is shared by more than one households, while sanitation and electricity have generally been independently used by the households. After examining the working conditions and housing characteristics, we may now move on to chapter V so as to empirically examine the migration pattern, poverty profile and consumption pattern of unregistered informal sector workers.

## CHAPTER V

### MIGRATION PATTERN, POVERTY PROFILE AND CONSUMPTION PATTERN OF UNREGISTERED INFORMAL SECTOR WORKERS

In the literature on urban development economics, the causes of migration differ from one city to another. Similarly, the level of poverty varies from one type of dwelling to another depending on the development level of the different metropolitan, medium and small cities. Also, the consumption pattern of city dwellers differs from one city to another depending on the level of economic activities carried out at the city level. These issues need to be empirically examined across the cities. In the light of above, present chapter seeks to examine : (i) migration pattern; (ii) poverty level; and (iii) consumption pattern of informal sector workers. The examination of above aspects would likely to be helpful for in-depth understanding about the smooth functioning of unregistered informal sector at the city level.

#### **I.1 Migration Pattern**

Table V.1 classifies workers into migrant and non-migrants. We find that, in Agra, 7.20 per cent, in Kanpur 11.60 per cent and in Puri to 1.40 per cent are the migrant workers. In all cities jointly, the migrant workers account for 6.73 per cent, of the total unregistered informal sector workers. Of the total migrant workers, 55.56 per cent in Agra have come from urban areas, while to 67.24 per cent in Kanpur and to 100 per cent in Puri have come from rural hinterland (table V.2). Generally, intra-state migration took place in case of Agra and Kanpur, while inter-state migration has been reported in case of Puri city.

Table V.1 : Classification of Workers into Migrant and Non-Migrants in Agra, Kanpur and Puri : 1999

Cities	Migrant workers		Non-migrant workers		Total workers	
	No.	%	No.	%	No.	%
Agra	36	7.20	464	92.80	500	100.00
Kanpur	58	11.60	442	88.40	500	100.00
Puri	7	1.40	493	98.60	500	100.00
Total	101	6.73	1399	93.27	1500	100.00

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

Table V.2 : Classification of Migrant Workers by Origin in Agra, Kanpur and Puri : 1999

Cities	Migrant workers in:					
	Urban		Rural		Total	
	No.	%	No.	%	No.	%
Agra	20	55.56	16	44.44	36	100.00
Kanpur	19	32.76	39	67.24	58	100.00
Puri	--	--	7	100.00	7	100.00
Total	39	38.61	62	61.39	101	100.00

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

## I.2 Causes of Migration

Generally, the rural push and urban pull factors are held responsible for the process of rural-urban migration. Rural push relates to the increased pressure on land resulting into poverty, urban pull manifests the job prospect, urban amenities and the charms of city life.<sup>72</sup> This model, being too simplistic, lacks not only the theoretical rigour and empirical reality but also fails to provide a complete explanation for the process of migration. As a result, some theoretical models were developed to explain the process of rural-urban migration. Models

<sup>72</sup> Papola, T.S., *op.cit.*, 1.



formulated by Eckaus,<sup>73</sup> Lewis<sup>74</sup> and Fei and Ranis<sup>75</sup> explain how the rural out-migrants are absorbed in urban industrial sector. However, these models have primarily considered the factors on demand side, where the transfer of workers from rural to urban areas is considered as one stage phenomenon. It implies that work force transferred from rural areas gets directly absorbed in the high productive urban industrial sector.

This is, however, not the whole truth. Rural workforce, after migration initially gets absorbed in the traditional informal sector but overtime, after having acquired enough experience and skills, they get entry into the urban industrial sector. Therefore, it is the two stage phenomena which give a complete explanation for labour absorption taking into account both demand as well as supply side aspects of employment problem. Based on these arguments, Todaro<sup>76</sup> developed a rigorous model in order to explain more precisely the process of rural-urban migration. Todaro's model is based upon two principal factors : (i) rural-urban real income differentials; and (ii) high probability of getting a job in the urban industrial or formal sector. In this model more weightage is given to the second factor as has been stated:

"Even if the prevailing real wage is significantly higher than expected rural income, the fact that the 'probability' of obtaining a modern sector job, say within the next year or two, is very low must certainly influence the perspective migrant's choice as to whether or not he should leave the farm. In effect he must balance the probabilities and risks of being unemployed or sporadically employed in the city for a certain period of time against the favourable urban wage differentials."<sup>77</sup>

Todaro's model explains the rural-urban migration mainly in terms of productivity differential existing between the rural and modern urban sector and the probability of getting

<sup>73</sup> Eckaus, R.S., "The Factor Proportions Problems in Under-developed Areas", The American Economic Review, September, 1955.

<sup>74</sup> Lewis, W.A., Op.cit., 12.

<sup>75</sup> Fei, JCH and Ranis, G., Op.cit., 13.

<sup>76</sup> Todaro, M.P., "A Model of Labour Migration and Urban Unemployment in Less Developed Countries", American Economic Review, March 1969; Harris, J.R. and Todaro, M.P., "Migration, Unemployment and Development : A Two Sector Analysis", American Economic Review, March 1970; Aziz, A., Urban Poor and Urban Informal Sector, Ashish Publishing House, New Delhi, 1984.

<sup>77</sup> Aziz, Abdul, Ibid., p.147.

absorbed in the latter after certain time lag. "The latter probability is governed by the ratio of new modern employment opportunities in a given period relative to the number of accumulated job seekers in the urban traditional sector."<sup>78</sup>

Todaro's model, considered three sectors, viz. (i) rural agricultural sectors, (ii) traditional informal or 'holding' sector, and (iii) modern industrial sector. Thus, the transfer of workforce from rural to urban informal and then from informal to formal sector was the fundamental basis of Todaro's model. Although, this model is superior vis-à-vis the other models discussed, yet it deviates from the real situations prevailing in most of the developing economies on account of its underlying unrealistic assumptions. Todaro himself admits that his model assumes "the constancy of rate of growth of urban modern employment sector and the urban real wage premium, which cannot be empirically sustained."<sup>79</sup> Besides, the model also assumes free entry into the modern industrial sector from the 'holding' informal sector. However, the entry into the modern industrial sector is highly restrictive, on account of its formalized structure in terms of recruitment of workers, regulation of labour laws and the existence of trade union activities. Experiences of many developing countries do suggest that contrary to the "predictions made by these models rural labour did not get absorbed in the dynamic urban economy because urban industrial sector has been more sluggish than was assumed in the model."<sup>80</sup>

### **I.3 Factors Motivating Migration**

Generally, low income has been stated as the primary cause of migration for workers. A close examination of table V.3 reveals that 61.11 per cent of workers in Agra, 41.38 per cent

<sup>78</sup> Ibid., pp.25-26.

<sup>79</sup> Ibid., p.26.

<sup>80</sup> Hirschman, Charles, "Unemployment Among Urban Youth in Penninsular Malaysia, 1970 : A Multivariate Analysis of Individual and Structural Effects", Economic Development and Cultural Changes, January, 1982, p.393.

in Kanpur, 85.71 per cent in Puri and to 51.49 per cent in all cities jointly migrated owing to the low level of low income. It would imply that expectation of high earning has pushed the workers into the unregistered manufacturing and non-manufacturing segments of the informal sector. Migration due to the poor job prospect has been caused to the 19.44 per cent of workers in Agra, 36.21 per cent in Kanpur, 14.29 per cent in Puri and to 28.71 per cent in all cities together. The family conflict as a primary reason for migration has been reported by 16.67 per cent of migrant workers in Agra, 18.97 per cent in Kanpur and to 16.83 per cent in all cities together. Thus, rural push on account of low level of income has been found as the main determinant of the process of rural-urban migration vis-à-vis other urban pull factors.

Table V.3 : Factors Causing Migration

Factors	Migrant workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Low income	22	61.11	24	41.38	6	85.71	52	51.49
Poor job prospects	7	19.44	21	36.21	1	14.29	29	28.71
Family conflicts	6	16.67	11	18.97	--	--	17	16.83
Others	1	2.78	2	3.44	--	--	3	2.97
Total	36	100.00	58	100.00	7	100.00	101	100.00

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

#### **I.4 Background of Migrant Workers Before Migration**

We also examined the economic activities carried out by migrant workers before migration. It is given in table V.4. In Agra, a majority of migrant workers was carrying out agriculture and business as 27.78 per cent of workers were undertaking each activity respectively. Next, in order of importance, comes the service, which has been carried out by 25 per cent of migrant workers before migration. A majority of workers in Kanpur (29.31 per

cent) has reported that they have been doing agriculture before migration. In Puri, a majority of workers (42.85 per cent) were unemployed, while 28.57 per cent of them were studying before migration. Those engaged in each agriculture and business before migration have been reported to be 14.29 per cent respectively.

Table V.4 : Economic Activities Before Migration : 1999

Economic activities	Migrant workers in cities							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Agriculture	10	27.78	17	29.31	1	14.29	28	27.72
Business	10	27.78	5	8.62	1	14.29	16	15.84
Service	9	25.00	8	13.79	--	--	17	16.83
Studying	1	2.78	11	18.97	2	28.57	14	13.86
Unemployed	6	16.66	17	29.31	3	42.85	26	25.75
Total	36	100.00	58	100.00	7	100.00	101	100.00

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

In all categories, a majority of workers (27.72 per cent) was carrying out agriculture, service (16.83 per cent) and business (15.84 per cent). However, as much as 25.75 per cent of workers were unemployed before migration. It suggests that agriculture and business in Agra and Kanpur have mainly been carried out by the workers before migration. In Puri, a majority of workers was found unemployed as well as engaged in studying before migration. In all cities, agriculture and service have been reported to be the main economic activities of workers before migration (table V.4).

### **I.5 Pattern of Job Changes**

The pattern of job changes in the unregistered informal sector is generally of horizontal type, i.e., casual to casual within the same type of firm/establishment. Table V.5 portrays the

pattern of job changes of workers. The in-depth examination of job changes requires an index of job mobility defined as a ratio between number of job changes and working years in the industry. Based on this, we find that a worker changes job in 12.5 years of his service in Agra. In Kanpur and Puri, the corresponding figure comes to 20 years and 50 years respectively. This is an interesting finding, which underlines the scarcity of job in the industry and thereby it forces workers to remain within this segment for the long period for survival. In Puri, however, the situation is more pitiable. In fisheries in Puri, workers once employed in a particular establishment is given loan to such an extent that it can not be repaid throughout their service period. Consequently, workers are forced to work as a type of slave or bonded labour throughout their whole service period.

Table V.5 : Pattern of Job Changes of Migrant Workers in Agra, Kanpur and Puri : 1999

Work experience	Cities														
	Agra					Kanpur					Puri				
	Job changes				Index of job mobility	Job changes				Index of job mobility	Job changes				Index of job mobility
	0	1	2	3		0	1	2	3		0	1	2	3	
Upto 1 years	7	--	--	--	--	3	--	--	--	--	--	--	--	--	--
1 to 2 years	3	2	--	--	0.21	10	--	--	--	--	1	--	--	--	--
2 to 3 years	--	1	--	--	0.46	2	1	--	--	0.12	--	--	--	--	--
3 to 4 years	2	--	--	--	--	5	--	--	--	--	--	--	--	--	--
4 to 5 years	5	2	--	--	0.06	6	1	--	--	0.03	1	--	--	--	--
5 to 8 years	1	4	1	--	0.15	3	4	1	--	0.11	1	1	--	--	0.06
8 to 15 years	1	--	--	1	0.13	5	7	3	--	0.08	1	--	--	--	--
Above 15 years	1	2	3	--	0.06	1	4	1	--	0.05	1	1	--	--	0.02
Total	20	11	4	1	0.08	35	11	5	--	0.05	5	2	--	--	0.02

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

Work experience shows direct relation with the job changes. For instance, in Agra, worker with 3 years of experience changes job in 2.17 years; worker with 8 years of experience changes job in 6.67 years; worker with 15 years of experience changes job in 7.69 years; and worker with more than 15 years of experience changes job in 16.67 years. This is, however, not applicable in Kanpur. Worker with 15 years of experience changes job in 12.5 years; and worker over 15 years of experience changes job in 20 years. Thus, higher the work experience, lower is the job changes in Kanpur city. The pattern of job changes in Kanpur is seen accompanied in cases of Puri city as well. Worker with 8 years and that of worker with over 15 years of experience changes job in 50 years. Thus, higher the work experience, lower the job changes, which implies the tied or bonded type of job of workers under the compelling economic conditions, such as non-payable capacity of loan and advances provided by the owner of the firms/establishments (table V.5).

## **I.6 Waiting Period**

We may now examine the waiting period of migrant workers. Of the migrant workers in Agra, 44.44 per cent of workers came in the city with a hope to get job, while for 41.67 per cent of workers, job was fixed. Also, 13.89 per cent of workers came in the city with an assurance to get the job. In Kanpur city, 68.97 per cent of workers migrated with a hope to get job, while for 20.69 per cent job was fixed to them. Another for 10.34 per cent of workers, job was assured to them. In Puri, for 57.14 per cent of workers job was fixed, while 42.86 per cent of workers migrated with a hope to get the job. In all cities together, 58.42 per cent of workers migrated with a hope to get the job, while 30.69 per cent had job fixed for them. It emerges that the unregistered informal sector workers generally migrated in the cities with a hope to get the job for their survival (table V.6).



Table V.6 : Classification of Migrant Workers According to Possibility of Getting Job in Agra, Kanpur and Puri: 1999

Migrant workers for whom:	Migrant workers in:							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Job was fixed	15	41.67	12	20.69	4	57.14	31	30.69
Assurance for job	5	13.89	6	10.34	--	--	11	10.89
A hope to get job	16	44.44	40	68.97	3	42.86	59	58.42
Total	36	100.00	58	100.00	7	100.00	101	100.00

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

Generally, migrant workers in Agra did not wait at all to get the job. Such workers account for 36.11 per cent. Workers waiting upto 10 days for getting the job come to 33.33 per cent; 10-20 days 5.56 per cent; 20 days – one month 11.11 per cent; 1 month – 6 months 8.33 per cent; 6 months – 1 year 2.78 per cent; and to more than one year to 2.78 per cent. Thus, a majority of workers in Agra waited upto 10 days to get absorbed in the unregistered informal sector. Similarly in Kanpur, 22.41 per cent of workers did not wait at all to get the job. The 39.66 per cent of workers waited upto 10 days; 13.79 per cent 10-20 days; 8.62 per cent 20 days to 1 month; 8.62 per cent from 1-6 months; 3.45 per cent 6 months to 1 year; and to 3.45 per cent of workers waited over 1 year to be absorbed in this segment of the informal sector. Thus, in Kanpur city also, a majority of workers waited upto 10 days to get the job. In Puri, a majority of workers (57.14 per cent) did not wait at all to get the job, while 42.86 per cent of workers waited upto 10 days. In all cities together, a majority of workers (37.62 per cent) waited upto 10 days, while to 29.71 per cent of workers did not wait at all to get the job. Thus, this part of analysis tends to suggest that to enter into the unregistered informal segment, worker only requires 10 days to get the job or there is no waiting period at all (table V.7).

Table V.7 : Waiting Period by Migrant Workers for Getting the Job in Agra, Kanpur and Puri: 1999

Waiting time	Migrant workers in:							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
No waiting	13	36.11	13	22.41	4	57.14	30	29.71
1 day – 10 days	12	33.33	23	39.66	3	42.86	38	37.62
10 days – 20 days	2	5.56	8	13.79	--	--	10	9.90
20 days – 1 month	4	11.11	5	8.62	--	--	9	8.91
1 month – 6 months	3	8.33	5	8.62	--	--	8	7.92
6 months – 1 year	1	2.78	2	3.45	--	--	3	2.97
More than 1 year	1	2.78	2	3.45	--	--	3	2.97
Total	36	100.00	58	100.00	7	100.00	101	100.00

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

The job in this segment is seen provided generally by relatives/friends. For example, 94.44 per cent of migrant workers in Agra, 100 per cent each in Kanpur and Puri and to 98.02 per cent in all cities have entered into the job through relatives/friends. Thus, close links with relatives/friends are found as the basis for getting the job in the unregistered informal sector (table V.8).

Table V.8 : Sources of Employment for Unregistered Informal Sector Workers in Agra, Kanpur and Puri: 1999

Migrant workers employed through:	Migrant workers in:							
	Agra		Kanpur		Puri		Total	
	No.	%	No.	%	No.	%	No.	%
Relatives/friends	34	94.44	58	100.00	7	100.00	99	98.02
Advertisement	1	2.78	--	--	--	--	1	0.99
Any other	1	2.78	--	--	--	--	1	0.99
Total	36	100.00	58	100.00	7	100.00	101	100.00

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

### **1.7 Economic Benefit Due to Migration**

We further examined the economic benefit accrued to unregistered informal sector workers due to migration. This has been examined across manufacturing and non-manufacturing activities in each cities in table V.9. Within manufacturing segment in Agra, we find that monthly per worker wage has increased by 2.22 times between the first job and that received during the pre-migration period. Between the first job and the present job, the monthly per worker wage has increased by 1.89 times. The monthly per worker wage between the present job and the pre-migration period has increased by 4.21 times.

Within the non-manufacturing segment, the monthly per worker wage between the first job and the pre-migration period has increased by 1.55 times and that between the first and the present by 1.76 times. The monthly per worker wage between the present job and the pre-migration period has increased by 2.74 times. In manufacturing and non-manufacturing total, the monthly per worker wage between first job and the pre-migration period has increased by 1.86 times; between first and the present by 1.84 times; and that between the present job and that during pre-migration period by 3.42 times (table V.9).

Within the manufacturing segment in Kanpur, monthly per worker wage between first job and the pre-migration period increased by 1.85 times; between first to present job by 2.73 times; and between present job to that of pre-migration period by 5.05 times. Within the non-manufacturing segment, the corresponding figure comes to 2.14 times, 1.48 times and to 3.18 times respectively. In the total of manufacturing and non-manufacturing segments, the monthly per worker wage between the present job and that during the pre-migration period has gone up by 2.02 times; between first job and present job by 1.98 times; and that between present and pre-migration period by 3.99 times (table V.9).

Table V.9 : Economic Benefit Due to Migration

Particulars		Economic activities		
		Manu- facturing	Non- Manu- facturing	Total
<b>A. Agra</b>				
A.1	Migrant workers (No.)	16	20	36
A.2	Per worker monthly wages before migration (Rs.)	700	650	672
A.3	Per worker monthly wages in the first job (Rs.)	1557.14	1010.00	1253.17
A.4	Per worker monthly wages in the present job (Rs.)	2950.00	1780.00	2300.00
A.5	Changes in wages of per worker between pre-migration and the first job	2.22	1.55	1.86
A.6	Changes in wages of per worker between first job and present job	1.89	1.76	1.84
A.7	Changes in wages of per worker between pre-migration and the present job	4.21	2.74	3.42
<b>B. Kanpur</b>				
B.1	Migrant workers (No.)	30	28	58
B.2	Per worker monthly wages before migration (Rs.)	500	700	596.55
B.3	Per worker monthly wages in the first job (Rs.)	925	1500	1202.58
B.4	Per worker monthly wages in the present job (Rs.)	2523.33	2228.57	2381.03
B.5	Changes in wages of per worker between pre-migration and the first job	1.85	2.14	2.02
B.6	Changes in wages of per worker between first job and present job	2.73	1.48	1.98
B.7	Changes in wages of per worker between pre-migration and the present job	5.05	3.18	3.99
<b>C. Puri</b>				
C.1	Migrant workers (No.)	1	6	7
C.2	Per worker monthly wages before migration (Rs.)	200	250	242.86
C.3	Per worker monthly wages in the first job (Rs.)	400	525	507.14
C.4	Per worker monthly wages in the present job (Rs.)	2500	3500	3357.14
C.5	Changes in wages of per worker between pre-migration and the first job	2.00	2.1	2.09
C.6	Changes in wages of per worker between first job and present job	6.25	6.66	6.62
C.7	Changes in wages of per worker between pre-migration and the present job	12.50	14.00	13.82
<b>D. All Cities</b>				
D.1	Migrant workers (No.)	47	54	101
D.2	Per worker monthly wages before migration (Rs.)	561.70	631.48	598.93
D.3	Per worker monthly wages in the first job (Rs.)	1129.03	1210.19	1172.41
D.4	Per worker monthly wages in the present job (Rs.)	2674.47	2203.70	2419.80
D.5	Changes in wages of per worker between pre-migration and the first job	2.01	1.92	1.96
D.6	Changes in wages of per worker between first job and present job	2.37	1.82	2.06
D.7	Changes in wages of per worker between pre-migration and the present job	4.76	3.49	4.04

Source : Based on the information collected from the field in Agra, Kanpur and Puri cities.

Within the manufacturing segment in Puri, monthly per worker wage between the present and pre-migration shot by over 2 times; between the present and the first job by 6.25 times; and between present and the pre-migration period by 12.50 times. Within the non-manufacturing segment, the corresponding figures were noticed to be 2.1 times, 6.66 times and to about 14 times respectively. In the total of manufacturing and non-manufacturing segments, monthly per worker wage between the first job and the pre-migration period went upto 2.09 times; between present and the first job to 6.62 times; and that between the present and the pre-migration period to 13.82 times (table V.9).

In all cities within the manufacturing segment, there is two-fold increase in the monthly per worker wage between the first and the pre-migration period; 2.37 times between the present and the first job; and to 4.76 times between the present and the pre-migration period. Within the non-manufacturing segment, the corresponding figure comes to 1.92 times, 1.82 times and to 3.49 times respectively. In the total of manufacturing and non-manufacturing segments, the increase in monthly per worker wage between the first job and that during the pre-migration period comes to 1.96 times; between first and present to 2.06 times; and that between present and the pre-migration period to 4.04 times (table V.9). The above analysis, therefore, implies that there is clear economic gain for unregistered informal sector workers after migration. Such a gain is considerably higher in Puri than the rest.

## **II. Poverty Profile and Saving Behaviour of Informal Sector Workers**

We may now examine the poverty profile of informal sector workers. It may be, however, mentioned that the exact norms identifying the households below the poverty line, have not been researched so far. The most commonly used per capita monthly consumption

expenditure has attracted much controversy<sup>81</sup> among the economists. This is because the monthly per capita consumption expenditure is derived from calorie intake, which in turn, is determined by various quantifiable and non-quantifiable factors, such as age, sex, activity levels, weight, season and to on. Since it is not possible to compute a composite index of calorie requirement, determining the consumption expenditure, the studies on poverty have become less useful on operational grounds. Such a method, though criticised severely, helps in identifying the poor, although not as precisely as one would wish.

It may be noted that Draft Ninth Five Year Plan published by Planning Commission gives the cut-off point in terms of per capita income for delineating persons below or above the poverty line. It has been noted that during 1993-94, in urban areas persons having per capita income of Rs.258.7 or more are defined above the poverty line. By implication persons having below monthly per capita income of Rs.258.70 are defined below the poverty line. To arrive the poverty estimates for the year 1999, the above figure (Rs.258.70) has been readjusted by applying the consumer price index available for urban non-manual employees at 1984-85 base. Such information has been found available in Statistical Abstract, published by Central Statistical Organization, Ministry of Statistics and Plan Implementation, Government of India, 1999.

Based on above procedure, the persons living below or above the poverty line in 1999 have been identified in Agra, Kanpur and Puri cities. In Agra, households having monthly per capita income of Rs.385.68 or more have been defined as above the poverty line. In Kanpur,

<sup>81</sup> Rao, V.M., et.al., "Calorie Norm Controversy", *Economic and Political Weekly*, Vol.XVII, No.7, February 13, 1982, pp.254-255; Banerji, D., "Measurement of Poverty and Undernutrition", *Economic and Political Weekly*, Vol.XVI, No.39, September 26, 1981, pp.1579-1582; Sukhatme, P.V., "On Measurement of Poverty", *Economic and Political Weekly*, July, 1980, Rao, V.K.R.V., "Some Nutritional Puzzles : A Note", *Economic and Political Weekly*, July 1981, pp.1205-1208; Kashyap, S.P. and Tiwari, R.S., *Shaping of Diamonds in Surat : Some Passas (Facets)*, Sardar Patel Institute of Economic and Social Research, Ahmedabad, Allied Distributors, 1986, p.117.



households with monthly per capita income of Rs.373.17 or more have been termed above the poverty line. Similarly, in Puri, households having monthly per capita income of Rs.430.91 or more have been deemed as above the poverty line. By implication, households having below monthly per capita income of Rs.385.68, Rs.373.17 and to Rs.430.91 in Agra, Kanpur and Puri have been deemed as below the poverty line.

Based on the cut-off points, per-se, we find that in Agra, 256 households (or 51.20 per cent) are living below the poverty line. In slum, 77.50 per cent, in chawl 64.97 per cent and in tenament, apartment and other types of housing 40.59 per cent of households have been deemed below the poverty line. In sharp contrast to above, 244 households (or 48.80 per cent) are deemed above the poverty line. It suggests that as we move from inferior type of dwelling to superior ones, the households living below the poverty line declines, whereas, non-poor households tend to increase. The monthly per capita income of households living below the poverty line comes to Rs.284.47 for slum dwellers, Rs.301.24 for chawl dwellers, Rs.350.24 for other type of dwellers and to Rs.311.27 for all types of dwellers, whereas monthly per capita expenditure comes to Rs.241.80, Rs.225.93, Rs.252.17 and to Rs.239.02 respectively. Thus, saving ratio comes to 0.15 for slum dwellers, 0.25 for chawl dwellers, 0.28 for other types of dwellers and to 0.23 for all types of dwellers for households living below the poverty line.

As far the monthly per capita income of households living above poverty line, it comes to Rs.828.36 for slum dwellers, Rs.920.24 for chawl dwellers, Rs.1128.12 for other types of dwellers and to Rs.954.11 for all types of dwellers, whereas, monthly per capita expenditure to Rs.679.26, Rs.779.68, Rs.895.12 and to Rs.782.64 respectively. Thus, saving ratio turns out to be 0.18 for slum dwellers, 0.15 for chawl dwellers, 0.21 for other types of dwellers and to 0.18 for all types of dwellers. In Agra city as a whole, the saving ratio comes to 0.16 for slum

dwellers, 0.19 for chawl dwellers, 0.22 for other types of dwellers and to 0.19 for all types of dwellers (table V.10).

Table V.10 : Poverty Profile of Unregistered Informal Sector Households by Types of Dwellings in Agra : 1999

Particulars	Dwellings			
	Slums	Chawls	Any other	Total
Household size	5.98	6.98	5.68	5.85
No. of households	40	157	303	500
Households living below poverty line (Nos.)	31 (77.50)	102 (64.97)	123 (40.59)	256 (51.20)
Households living above poverty line (Nos.)	9 (22.50)	55 (35.03)	180 (59.41)	244 (48.80)
<u>Monthly per capita income of households living:</u>				
(a) Below poverty line (Rs.)	284.47	301.24	350.24	311.27
(b) Above poverty line (Rs.)	828.36	920.24	1128.12	954.11
<u>Monthly per capita expenditure of households living:</u>				
(a) Below poverty line (Rs.)	241.80	225.93	252.17	239.02
(b) Above poverty line (Rs.)	679.26	779.68	895.12	782.64
<u>Saving ratio:</u>				
(a) Below poverty line	0.15	0.25	0.28	0.23
(b) Above poverty line	0.18	0.15	0.21	0.18
Overall saving ratio	0.16	0.19	0.22	0.19

Source : Based on the information collected from 500 unregistered informal sector workers in Agra city.

Poverty profile and saving behaviour of households in Kanpur have been portrayed in table V.11. It is found that 3 households (or 60 per cent) in slums; 151 households (or 56.13 per cent) in chawls; 121 households (or 53.54 per cent) in other types of dwellings; and to 275 households (or 55 per cent) in all types of dwellings have been found living below the poverty line. On the other hand, 2 households (or 40 per cent) in slums; 118 households (or 43.87 per cent) in chawls; 105 households (or 46.46 per cent) in other types of dwellings; and to 225 households (or 45 per cent) in all types of dwellings have been found living above the poverty line. Thus, alike Agra city, poverty tends to come down as we move from inferior type

of dwelling to superior ones. Also, households living above poverty line increases from inferior types of dwellings to superior ones.

As far the saving bahaviour, we find that monthly per capita income of slum dwellers living below the poverty line comes to Rs.350, chawl dwellers Rs.324.56, other types of dwellers Rs.365.00 and for all types of dwellers to Rs.344.11. The monthly per capita expenditure for corresponding households comes to Rs.259.00, Rs.233.68, Rs.274.00 and to Rs.253.18. Based on above figures, the saving ratio has been worked out to be 0.26 for slum dwellers, 0.28 for chawl dwellers, 0.25 for other dwellers, and to 0.26 for all types of dwellers.

Table V.11 : **Poverty Profile of Unregistered Informal Sector Households by Types of Dwellings in Kanpur : 1999**

Particulars	Dwellings			
	Slums	Chawls	Any other	Total
Household size	3.80	4.85	5.64	5.28
No. of households	5	269	226	500
Households living below poverty line (Nos.)	3 (60.00)	151 (56.13)	121 (53.54)	275 (55.00)
Households living above poverty line (Nos.)	2 (40.00)	118 (43.87)	105 (46.46)	225 (45.00)
<u>Monthly per capita income of households living:</u>				
(c) Below poverty line (Rs.)	350.00	324.56	365.00	344.11
(d) Above poverty line (Rs.)	947.92	861.97	1099.59	982.58
<u>Monthly per capita expenditure of households living:</u>				
(c) Below poverty line (Rs.)	259.00	233.68	274.00	253.18
(d) Above poverty line (Rs.)	720.00	660.00	900.67	775.64
<u>Saving ratio:</u>				
(c) Below poverty line	0.26	0.28	0.25	0.26
(d) Above poverty line	0.24	0.23	0.18	0.21
Overall saving ratio	0.25	0.25	0.20	0.23

Source : Based on the information collected from 500 unregistered informal sector workers in Kanpur city.

Similarly, monthly per capita income of non-poor slum dwellers comes to Rs.947.92; chawl dwellers Rs.861.97; other types of dwellers Rs.1099.59; and for all types of dwellers to

Rs.982.58. Also, monthly per capita expenditure for corresponding dwellers comes to Rs.720.00, Rs.660.00, Rs.900.67 and to Rs.775.64 respectively. Based on the monthly per capita income and expenditure, the saving ratio comes to 0.24 for slum dwellers, 0.23 for chawl dwellers, 0.18 for other types of dwellers and to 0.21 for all types of dwellers. For the city as a whole, the saving ratio has been worked to be 0.25 each for slum dwellers and chawl dwellers, 0.20 for other types of dwellers and to 0.23 for all types of dwellers (table V.11).

The poverty profile and saving behaviour for the informal sector households have been given in tale V.12 in case of Puri city. We find that 63 households (or 75.90 per cent) in slums; 102 households (or 38.20 per cent) in chawls; 20 households (or 13.33 per cent) in other types of dwellings; and to 185 households (or 37.00 per cent) in all types of housing have been found living below the poverty line. On the other hand, 20 households (or 24.10 per cent) in slums; 165 households (or 61.80 per cent) in chawls; 130 households (or 86.67 per cent) in other types of dwellings; and to 315 households (or 63.00 per cent) in all types of dwellings have been found living above the poverty line. Thus, poverty declines when we move from inferior type of housing to superior ones and vice-versa.

As far the saving bahaviour, we find that monthly per capita income of households living below the poverty line for slum dwellers comes to Rs.337.89, chawl dwellers Rs.355.56, other types of dwellers Rs.358.95 and to all types of dwellers to Rs.349.60. The corresponding monthly per capita expenditure turns out to be Rs.256.80, Rs.266.67, Rs.262.03 and to Rs.262.69 respectively. Consequently, therefore, saving ratio comes to 0.24 for slum dwellers, 0.25 for chawl dwellers, 0.27 for other dwellers and to 0.25 for all types of dwellers.

Table V.12 : Poverty Profile of Unregistered Informal Sector Households by Types of Dwellings in Puri : 1999

Particulars	Dwellings			
	Slums	Chawls	Any other	Total
Household size	5.59	5.26	4.96	5.22
No. of households	83	267	150	500
Households living below poverty line (Nos.)	63 (75.90)	102 (38.20)	20 (13.33)	185 (37.00)
Households living above poverty line (Nos.)	20 (24.10)	165 (61.80)	130 (86.67)	315 (63.00)
<u>Monthly per capita income of households living:</u>				
(e) Below poverty line (Rs.)	337.89	355.56	358.95	349.60
(f) Above poverty line (Rs.)	770.73	563.74	601.25	592.87
<u>Monthly per capita expenditure of households living:</u>				
(e) Below poverty line (Rs.)	256.80	266.67	262.03	262.69
(f) Above poverty line (Rs.)	559.08	394.62	414.86	413.97
<u>Saving ratio:</u>				
(e) Below poverty line	0.24	0.25	0.27	0.25
(f) Above poverty line	0.27	0.30	0.31	0.30
Overall saving ratio	0.25	0.29	0.31	0.29

Source : Based on the information collected from 500 unregistered informal sector workers in Puri city.

Monthly per capita income of households living above the poverty line comes to Rs.770.73 for slum dwellers; Rs.563.74 for chawl dwellers; Rs.601.25 for other types of dwellers; and to Rs.592.87 for all types of dwellers. For the corresponding dwellers, the monthly per capita expenditure comes to Rs.559.08, Rs.394.62, Rs.414.86 and to Rs.413.97 respectively. Based on the monthly per capita income and expenditure, saving ratio for the corresponding households is worked out at 0.27 for slum dwellers; 0.30 for chawl dwellers; 0.31 for other types of dwellers; and to 0.30 for all types of dwellers. In Puri, the saving ratio is estimated at 0.25 for slum dwellers, 0.29 for chawl dwellers, 0.31 for other types of dwellers and to 0.29 for all types of dwellers (table V.12).

In all cities, poverty profile and saving behaviour have been portrayed in table V.13. We find that 97 households (or 75.78 per cent) in slums; 355 households (or 51.23 per cent) in chawls; 264 households (or 38.88 per cent) in other types of dwellings; and to 716 households (or 47.73 per cent) in all types of dwellings have been found living below the poverty line. On the other hand, 31 households (or 24.22 per cent) in slums; 338 households (or 48.77 per cent) in chawls; 415 households (or 61.12 per cent) in other types of dwellings (tenement, apartment, housing societies, etc.); and to 784 households (or 52.27 per cent) in all types of dwellings are found living above the poverty line. Thus, when we move from inferior to superior type of dwellings, the level of poverty declines and vice-versa.

Table V.13 : Poverty Profile of Unregistered Informal Sector Households by Types of Dwellings: 1999

Particulars	Dwellings			
	Slums	Chawls	Any other	Total
Household size	5.64	5.49	5.51	5.45
No. of households	128	693	679	1500
Households living below poverty line (Nos.)	97 (75.78)	355 (51.23)	264 (38.88)	716 (47.73)
Households living above poverty line (Nos.)	31 (24.22)	338 (48.77)	415 (61.12)	784 (52.27)
<u>Monthly per capita income of households living:</u>				
(g) Below poverty line (Rs.)	320.10	324.57	357.63	332.90
(h) Above poverty line (Rs.)	796.41	732.34	970.28	822.61
<u>Monthly per capita expenditure of households living:</u>				
(g) Below poverty line (Rs.)	251.78	239.82	262.89	250.11
(h) Above poverty line (Rs.)	587.69	558.92	759.27	638.38
<u>Saving ratio:</u>				
(g) Below poverty line	0.21	0.26	0.26	0.25
(h) Above poverty line	0.26	0.24	0.22	0.22
Overall saving ratio	0.23	0.24	0.23	0.23

Source : Based on the information collected from 1500 unregistered informal sector workers in Agra, Kanpur and Puri cities.

As far saving behaviour, monthly per capita income of households living below the poverty line for slum dwellers comes to Rs.320.10; for chawl dwellers Rs.324.57; for other



types of dwellers Rs.357.63 and for all types of dwellers to Rs.332.90. Monthly per capita expenditure of households in respective dwellings comes to Rs.251.78, Rs.239.82, Rs.262.89 and to Rs.250.11 respectively. Based on the income and expenditure, the saving ratio comes to 0.21 for slum dwellers, 0.26 each for chawl dwellers and other types of dwellers and to 0.25 for all types of dwellers. It implies that 25 per cent of income is saved by the poor households to meet their crucial future requirements.

Similarly, monthly per capita income of households living above the poverty line for slum dwellers comes to Rs.796.41; chawl dwellers Rs.732.34; other types of dwellers Rs.970.28; and for all types of dwellers to Rs.822.61. Monthly per capita expenditure for corresponding dwellers comes to Rs.587.69, Rs.558.92, Rs.759.27 and to Rs.638.38 respectively. Based on above, saving ratio turns out to be 0.26 for slum dwellers, 0.24 for chawl dwellers, 0.22 each for other types of dwellers and to for all types of dwellers. Saving ratio in all cities turns out to be 0.23 for slum dwellers, 0.24 for chawl dwellers and to 0.23 each for other types of dwellers and to for all types of dwellers. It seems to suggest that unregistered informal sector households tend to save, on an average, 23 per cent out of their income so as to meet their future socio-economic responsibilities (table V.12).

### **III. Consumption Pattern of Unregistered Informal Sector Workers**

We may now examine the consumption pattern of unregistered informal sector workers. Traditionally, the approach in this area has been to test the empirical validity of Engel's law, which fundamentally implies that after the subsistence barrier is overcome, the expenditure on food articles declines in percentage terms with the increase of family income. It implies less than unity elasticity for food articles. An extended version of Engel's law also suggests that commodities like rent, fuel, light and clothing have near the unit elasticity, whereas, luxurious

items like recreational activities and education have more than unit elasticity. It may be mentioned that this law despite being century old has not been challenged and researchers have not 'discovered more enduring or more complex universal laws relating to income elasticities than those put forward by Engel.'<sup>82</sup> The law by Engel has been tested empirically by using the total expenditure of different items. The law implicitly assumes that Engel's curves are homogeneous of degree one with respect of household size and total expenditure of the family. We, in addition to total household expenditure, have also included the size of household as independent variable. Thus, Engel's curve, based on the above description, has been fitted by using the following equations:

$$\begin{array}{lll} \text{Linear form} & : & Y_i = a_1 + b_1 x_1 + b_2 x_2 + u_i \\ \text{Log linear form} & : & \text{Log } y_i = a_1 + b_1 \log x_1 + b_2 \log x_2 + u_i \end{array}$$

Where,  $Y_i$  is the household expenditure on the  $i^{\text{th}}$  item,  $x_1$  the total household expenditure,  $x_2$  the size of household and  $u_i$  is the error term,  $a_1$ ,  $b_1$ , and  $b_2$  are the parameters to be estimated. Further, in the linear model,  $b_1$  is an estimate of marginal propensity to consume, whereas,  $b_2$  measures the marginal increase in the consumption of  $i^{\text{th}}$  item due to an addition of the family size. In the log linear model,  $b_1$  and  $b_2$  are the estimates of elasticity of expenditure and family size respectively.

Tables V.14, V.15 and V.16 give the marginal propensities to consume (MPC) for 12 commodity groups for unregistered informal sector workers in Agra, Kanpur and Puri cities.<sup>83</sup> In Agra, all 12 regression equations are found to be significant statistically. The analysis of MPC reveals that, out of given increase in consumption, 3 per cent are spent on foodgrains, 2 per

<sup>82</sup> Brown, A. and Deaton, A., "Models of Consumer Behaviour", *Economic Journal*, 1969.

<sup>83</sup> In estimating the regression equations households reporting the calorie requirement below the urban areas required have been excluded and, therefore, sum of MPC as presented in tables V.14, V.15 and V.16 may not necessarily add to one.

cent on oil, 5 per cent each on milk and milk products and vegetables and to 10 per cent on other food items. Thus, MPC on food items is as high as 0.25. Within the non-food items, out of given increase in consumption, 10 per cent is spent each on clothing and children's education, 1 per cent on fuel items, 2 per cent on entertainment, 8 per cent on city transport and to 12 per cent on medical treatment. Thus, out of given increase in consumption, as much as 30 per cent are spent on other non-food items. Of the given increase in consumption, 0.73 per cent are spent on non-food items. Thus, MPC for non-food items comes to 0.73.

Table V.14 : Estimation of Marginal Propensities to Consume for Unregistered Informal Sector Workers in Agra : 1999

Commodities	$a_1$	$b_1$	$b_2$	$R^2 =$ Values	$F =$ Statistics
1. Foodgrains	85.10	0.03* (8.51)	79.64* (26.36)	0.71*	580.24
2. Oil	13.39	0.02* (15.83)	5.48* (4.81)	0.46*	201.89
3. Milk and milk products	43.27	0.05* (20.52)	8.07* (4.01)	0.57*	314.16
4. Vegetables	37.84	0.05* (20.95)	3.35** (1.84)	0.55*	289.67
5. Other food items	-29.25	0.10* (14.94)	-4.26 (-0.75)	0.36*	133.31
6. Clothing	-80.35	0.10* (16.75)	7.44*** (1.45)	0.44*	186.21
7. Fuel items	93.14	0.01* (8.93)	6.26* (6.04)	0.30*	101.57
8. Entertainment	40.99	0.02* (10.63)	-0.20 (-0.16)	0.23*	70.79
9. Children's education	-98.32	0.10* (11.82)	3.58 (0.50)	0.27*	87.66
10. Medical expenses	-59.43	0.12* (12.31)	-16.42** (-2.04)	0.26*	83.27
11. City transport	-9.32	0.08* (19.28)	-16.68* (-4.98)	0.45*	193.91
12. Other non-food items	-39.21	0.30* (31.77)	-72.89* (-8.41)	0.68*	527.52

Note : Figures under brackets show "t" values.

\* Significant at 1 per cent level.

\*\* Significant at 5 per cent level.

\*\*\* Significant at 10 per cent level.

Further, an addition in family size implies the increase in foodgrains, oils, milk and milk products, vegetables among the food items and in clothing, fuel items and children's education among the non-food items. However, an increase in family size also implied the cut in expenditure on other food items, entertainment, medical treatment, city transport and other non-food items. The MPC in case of these items has been found to be negative. Specifically, axe falls heavily upon other non-food items, which shows a high negative MPC (table V.14).

So far as consumption pattern of unregistered informal sector workers in Kanpur, all 12 regression equations are found significant statistically. The analysis of MPC shows that, out of given increase in consumption, 5 per cent are spent each on foodgrains, milk and milk products, and vegetables, 3 per cent on oil and to 7 per cent on other food items. Thus, 0.25 per cent of consumer expenditure is spent on food items. The MPC for food items, thus, comes to 0.25. Among the non-food items, out of given increase of consumption, 8 per cent are spent on clothing, 1 per cent each on fuel and entertainment, 23 per cent on children's education, 4 per cent on medical treatment, 8 per cent on city transport and to 25 per cent on other non-food items. Out of given increase in consumption, 70 per cent are spent on non-food items. Thus, total MPC for non-food items comes to 0.70. Further, a close examination of MPC with regard to family size implies the increase in consumption of foodgrains, oil, milk and milk products, vegetables, other food items among the food products, while on clothing, fuel and entertainment among the non-food items. However, an increase in family size implied the cut in expenditure on children's education, medical treatment, city transport and other non-food items. Specifically, axe falls heavily on other non-food items, which shows the high negative MPC (table V.15).

In case of Puri, all 12 regression equations are found statistically significant. A close examination of MPC reveals that, out of given increase in consumption, 12 per cent are spent

on foodgrains, 1 per cent on oil, 3 per cent on vegetables, 4 per cent on milk and milk products and to 8 per cent on other food items. Thus, 28 per cent are spent on food items as MPC for all food items comes to 0.28. Similarly, out of given increase in consumption, 4 per cent are spent each on fuel and city transport, 1 per cent on entertainment, 5 per cent on children's education, 21 per cent on medical treatment and to 15 per cent on other non-food items. Thus, 70 per cent are spent on non-food items as MPC for all non-food items comes to 0.70.

Table V.15 : Estimation of Marginal Propensities to Consume for Unregistered Informal Sector Workers in Kanpur : 1999

Commodities	$a_1$	$b_1$	$b_2$	$R^2 =$ Values	$F =$ Statistics
1. Foodgrains	2.16	0.05* (11.82)	73.05* (20.42)	0.69*	523.06
2. Oil	-5.98	0.03* (20.83)	1.64**** (1.19)	0.57*	311.51
3. Milk and milk products	63.58	0.05* (15.84)	5.32* (1.75)	0.44*	184.64
4. Vegetables	27.07	0.05* (24.78)	0.91 (0.50)	0.64*	417.78
5. Other food items	-17.28	0.07* (13.68)	16.27* (3.41)	0.41*	163.31
6. Clothing	-10.02	0.08* (16.10)	1.08 (0.24)	0.43*	177.28
7. Fuel items	96.45	0.01* (5.30)	7.07* (4.57)	0.17*	48.13
8. Entertainment	48.96	0.01* (6.92)	3.56** (2.05)	0.16*	44.76
9. Children's education	-271.27	0.23* (19.23)	-31.26* (-2.79)	0.48*	216.92
10. Medical expenses	51.05	0.04* (8.17)	-8.87** (-1.91)	0.13*	35.11
11. City transport	-68.88	0.08* (21.74)	-3.26**** (-0.92)	0.56*	299.09
12. Other non-food items	103.65	0.25* (32.44)	-66.04* (-7.79)	0.71*	575.34

Note : Figures under brackets show "t" values.

\* Significant at 1 per cent level.

\*\* Significant at 5 per cent level.

\* \*\*\* Significant at 20 per cent level.

Further, an increase in family size implies the increase in expenditure on food items, oil and other food items among the food articles, while on fuel items and entertainment among the non-food items. However, axe heavily falls on certain items, such as, milk and product, clothing, children's education, medical expenses, city transport and other non-food items, in which cases expenditure is considerably curtailed. The MPC for above items has been found to be highly negative (table V.16).

Table V.16 : Estimation of Marginal Propensities to Consume for Unregistered Informal Sector Workers in Puri : 1999

Commodities	a <sub>1</sub>	b <sub>1</sub>	b <sub>2</sub>	R <sup>2</sup> = Values	F= Statistics
1. Foodgrains	-51.06	0.12* (10.15)	78.44* (10.52)	0.50*	223.50
2. Oil	27.55	0.01* (6.46)	3.52* (2.81)	0.18*	49.06
3. Milk and milk products	48.49	0.04* (9.19)	-4.43*** (-1.50)	0.18*	49.06
4. Vegetables	44.35	0.03* (9.25)	0.003 (0.001)	0.21*	59.41
5. Other food items	151.33	0.08* (8.24)	5.80**** (0.91)	0.19*	52.43
6. Clothing	-236.25	0.20* (15.29)	-12.25*** (-1.42)	0.40*	149.00
7. Fuel items	104.57	0.04* (8.78)	3.33**** (1.15)	0.22*	63.04
8. Entertainment	-15.98	0.01* (7.50)	1.31** (1.88)	0.19*	52.43
9. Children's education	8.13	0.05* (8.08)	-8.62** (-2.01)	0.14*	36.38
10. Medical expenses	-272.78	0.21* (12.08)	-33.57* (-2.78)	0.27*	82.66
11. City transport	7.11	0.04* (11.50)	-6.39* (-2.78)	0.25*	74.50
12. Other non-food items	152.08	0.15* (13.03)	-28.33* (-3.37)	0.29*	91.29

Note : Figures under brackets show "t" values.

\* Significant at 1 per cent level.

\*\* Significant at 5 per cent level.

\*\*\* Significant at 10 per cent level.

\* \*\*\* Significant at 20 per cent level.



The results of above analysis based on linear models in Agra, Kanpur and Puri cities have been classified into four main commodity groupings, such as, (i) commodities whose MPC increased; (ii) commodities whose MPC was unchanged; (iii) commodities whose MPC declined; and (iv) commodities whose MPC fluctuated. Accordingly, (i) foodgrains and (ii) fuels come under the first category; (i) milk and milk products, (ii) vegetables, (iii) entertainment, (iv) city transport, and (v) other non-food items under the third; and (i) oil, (ii) clothing, (iii) children's education, and (iv) medical expenses under the fourth category. However, commodities under the second category were found to be non-existent.

Further, an increase in family size led to an increase of expenditure on (i) foodgrains, (ii) oil, (iii) milk and milk products, (iv) vegetables, (v) clothing, and (vi) fuel in Agra; (i) foodgrains, (ii) oil, (iii) milk and milk products, (iv) other food items, (v) fuel, and (vi) entertainment in Kanpur; and (i) foodgrains, (ii) oil, (iii) other food items, (iv) fuel, and (v) entertainment in Puri city. An increase in family size implied the curtailment of expenditure on (i) other food items, (ii) entertainment, (iii) medical expenses, (iv) city transport, and (v) other non-food items in Agra; (i) children's education, (ii) medical expenses, (iii) city transport, and (iv) other non-food items in Kanpur; and in (i) milk and milk products, (ii) clothing, (iii) children's education, (iv) medical expenses, (v) city transport, and (vi) other non-food items in Puri city. The former may be the outcome of dis-economies of scale, whereas later due to economies of scale.

Further insights into the consumption pattern for unregistered informal sector workers have been obtained from the log linear relationship. It has been presented in table V.17 for Agra, in table V.18 for Kanpur and in table V.19 for Puri. In Agra we find that expenditure elasticity for (i) foodgrains, (ii) oil, (iii) milk and milk products, (iv) vegetables, (v) other food items, (vi) fuels, (vii) entertainment, and (viii) children's education is less than or close to unity. For such items as (i) clothing, (ii) medical expenses, (iii) city transport, and (iv) other non-food

items, expenditure elasticity is found to be more than unity. Based on above, the former commodities may be considered as essential commodities, whereas, later the non-essential or luxurious commodities (table V.17).

Table V.17 : Estimation of Elasticities for Unregistered Informal Sector Workers in Agra: 1999

Commodities	$a_1$	$b_1$	$b_2$	$R^2 =$ Values	$F =$ Statistics
1. Foodgrains	3.57	0.21* (8.23)	0.67* (24.46)	0.70*	553.00
2. Oil	-1.81	0.74* (15.63)	0.28* (5.42)	0.49*	227.71
3. Milk and milk products	-0.76	0.74* (17.51)	0.14* (3.18)	0.50*	237.00
4. Vegetables	-1.21	0.77* (17.65)	0.16* (3.34)	0.51*	246.67
5. Other food items	-2.07	0.92* (11.53)	0.05 (0.60)	0.28*	85.92
6. Clothing	-3.96	1.19* (19.90)	-0.06**** (-0.97)	0.51*	246.67
7. Fuel items	1.61	0.39* (9.49)	0.15* (3.48)	0.27*	87.60
8. Entertainment	-0.22	0.58* (10.36)	-0.01 (-0.23)	0.22*	66.85
9. Children's education	-2.46	0.94* (10.15)	0.12**** (1.22)	0.24*	74.84
10. Medical expenses	-6.16	1.43* (13.29)	-0.22* (-1.87)	0.30*	101.57
11. City transport	-3.30	1.07* (14.75)	-0.25* (-3.17)	0.33*	116.73
12. Other non-food items	-5.90	1.61* (26.98)	-0.48* (-7.50)	0.62*	386.68

Note : Figures under brackets show "t" values.

\* Significant at 1 per cent level.

\*\* Significant at 5 per cent level.

\* \*\*\* Significant at 20 per cent level.

In Kanpur, expenditure elasticity for (i) foodgrains, (ii) oil, (iii) milk and milk products, (iv) vegetables, (v) other food items, (vi) fuel, (vii) entertainment, and (viii) medical expenses has been found to be either less than unity or close to unity. On the other hand, expenditure

elasticity for (i) clothing, (ii) children's education, (iii) city transport, and (iv) other non-food items has been found to be more than unity. Thus, the former commodity groups may be treated as essential while the later group of commodities as non-essential or luxurious commodities (table V.18).

Table V.18 : Estimation of Elasticities for Unregistered Informal Sector Workers in Kanpur: 1999

Commodities	$a_1$	$b_1$	$b_2$	$R^2 =$ Values	$F =$ Statistics
1. Foodgrains	1.78	0.42* (13.75)	0.66* (19.73)	0.73*	635.37
2. Oil	-2.26	0.80* (17.53)	0.24* *4.78)	0.56*	299.09
3. Milk and milk products	-1.07	0.80* (15.41)	0.06**** (1.01)	0.44*	184.64
4. Vegetables	-1.61	0.82* (18.40)	0.11** (2.21)	0.54*	275.87
5. Other food items	0.07	0.62* (12.08)	0.34* (5.93)	0.44*	184.64
6. Clothing	-2.92	1.05* (17.68)	-0.09*** (-1.39)	0.47*	208.40
7. Fuel items	1.03	0.44* (7.65)	0.22* (3.43)	0.23*	70.19
8. Entertainment	0.35	0.50* (9.33)	0.14** (2.35)	0.26*	82.57
9. Children's education	-7.39	1.67* (16.99)	-0.35* (-3.21)	0.42*	170.17
10. Medical expenses	-2.51	0.92* (10.82)	0.16** (-1.71)	0.23*	70.19
11. City transport	-4.24	1.16* (17.75)	0.00 (0.00)	0.49*	225.78
12. Other non-food items	-3.08	1.26* (29.90)	-0.35* (-7.68)	0.68*	499.38

Note : Figures under brackets show "t" values.

\* Significant at 1 per cent level.

\*\* Significant at 5 per cent level.

\*\*\* Significant at 10 per cent level.

\* \*\*\* Significant at 20 per cent level.

In Puri, expenditure elasticity for (i) foodgrains, (ii) oil, (iii) milk and milk products, (iv) vegetables, (v) other food items, (vi) fuel, (vii) entertainment, and (viii) city transport has been

found to be either to less than unity or close to unity. On the other hand, expenditure elasticity for such items as (i) clothing, (ii) children's education, (iii) medical expenses, and (iv) other non-food item has been found to be more than unity. Thus, former group of commodities may be considered as essential commodities, while later as the non-essential or luxurious commodities (table V.19).

Table V.19 : Estimation of Elasticities for Unregistered Informal Sector Workers in Puri: 1999

Commodities	$a_1$	$b_1$	$b_2$	$R^2 =$ Values	$F =$ Statistics
1. Foodgrains	1.18	0.55* (10.71)	0.54* (10.20)	0.51*	232.62
2. Oil	1.08	0.35* (5.32)	0.27* (3.95)	0.17*	45.78
3. Milk and milk products	-0.69	0.73* (8.72)	-0.16** (-1.86)	0.16*	42.57
4. Vegetables	0.07	0.62* (7.66)	-0.00 (0.00)	0.15*	39.44
5. Other food items	0.59	0.65* (7.83)	0.10**** (1.21)	0.18*	49.06
6. Clothing	-5.64	1.45* (13.18)	-0.31* (-2.75)	0.31*	100.41
7. Fuel items	0.30	0.62* (9.63)	0.08**** (1.16)	0.25*	74.50
8. Entertainment	-0.68	0.55* (7.75)	0.01 (0.14)	0.16*	42.57
9. Children's education	-2.82	1.01* (7.76)	-0.46* (-3.42)	0.12*	30.48
10. Medical expenses	-8.30	1.66* (11.77)	-0.15**** (-1.01)	0.28*	86.92
11. City transport	-2.32	0.90* (10.21)	-0.28* (-3.10)	0.20*	55.88
12. Other non-food items	-1.54	1.61* (13.55)	-6.25* (-3.23)	0.31*	100.41

Note : Figures under brackets show "t" values.

\* Significant at 1 per cent level.

\*\* Significant at 5 per cent level.

\* \*\*\* Significant at 20 per cent level.

It may be inferred that except those items having expenditure elasticity to more than unity, all items may be considered as essential commodities in the budget of worker's households. It is interesting finding that children's education, which was essential item for worker's household in Agra, turned out to be the luxurious item in Kanpur and Puri. Similarly, medical expenses, which was essential item for worker's household in Kanpur turned out to be the non-essential or luxurious item in Agra and Puri. Also, city transport, which was essential item in Puri turned out to be the non-essential or luxurious item in Kanpur and Agra. The reliability of such results is doubtful. This may either be due to the under or over-statement of information on consumption pattern of workers or the estimation errors. Disregarding these items, we find that expenditure of worker's household is distributed between the food and non-food items.

#### **IV. Concluding Observations**

The ongoing part of the study examines the migration pattern, poverty profile and consumption pattern of unregistered informal sector workers. The general finding suggests that in all cities together, migrant workers account for 6.73 per cent, being 7.20 per cent in Agra, 11.60 per cent in Kanpur and to 1.40 per cent in Puri city. Urban centre supplied the migrant workers in Agra, while rural areas in Kanpur and Puri considerably. Generally, intra-state migration occurred in Agra and Kanpur, while inter-state migration in Puri with the expectation of high earnings. Migrant workers were generally doing agriculture and business in Agra, agriculture in Kanpur, while in Puri, such workers were either unemployed or were engaged in studying before migration. Thus, economic factors such as expectation for future higher earning was found as the main cause for migration. The migrant workers generally waited 10 days for entering into the unregistered informal sector for job and jobs were

generally provided by relatives/friends. Thus, a close link with relatives/friends has been found as a strong basis for getting the job even in the unregistered informal sector. All workers generally benefitted after migration.

Study further examined the level of poverty of unregistered informal sector workers. We find that 51.20 per cent of workers in Agra, 55 per cent in Kanpur, 37 per cent in Puri and to 47.73 per cent have been living below the poverty line. Poverty is found worse in slum, whereas, it is less intense in chawl and tenement, apartment and other types of housing. The saving ratio comes to 0.23 for all unregistered informal sector workers. The results of Engel's curve analysis show a significant relationship between expenditure on different items with total expenditure and size of households. The analysis of MPC in Agra, Kanpur and Puri suggests that MPC for non-food items as a whole is higher than those of food items. The MPC is found largest on other non-food items in Agra, and Kanpur being to 0.30 and to 0.25. In Puri, the MPC is found largest in case of medical expenses of 0.21. The MPC is found lowest in case of fuel item (0.01) in Agra. It is found to be 0.01 per cent in each cases of fuel and entertainment in Kanpur, while to 0.01 in each cases of oil and entertainment in Puri.

The analysis of expenditure elasticity shows that, excepting few items, all commodities can be treated as essential commodities as expenditure elasticity is found to be less than unity. Such behaviour of consumption pattern of workers suggests that as these households emerge from below the subsistence level, they distribute the increase in consumption expenditure between food and the non-food items. After examining above aspects, we may now move on to chapter VI for the empirical examination of rehabilitation programme for unregistered informal sector workers in Agra, Kanpur and Puri cities.



## **CHAPTER VI**

### **REHABILITATION PROGRAMME FOR UNREGISTERED INFORMAL SECTOR WORKERS**

Rehabilitation programme has now been increasingly recognized as a prerequisite for low productive unorganized informal sector workers. As it is, it emerges on account of modernization of industries by adopting advanced technology and labour management relations, which thereby causes the displacement of workers and creates socio-economic tensions. Such displaced surplus labour and under-employed workers are required to be gainfully employed through various schemes and programmes. Rehabilitation programmes in this respect has received a critical importance. There may be various kinds of rehabilitation, which alternatively depends on the desirability of workers, infrastructural facility and skills and training available to the workers for this purpose. Present chapter makes an attempt at examining the various aspects of rehabilitation programme required to be launched for the more productive employment generation for the unorganized informal sector workers. In particular, present chapter seeks to examine : (i) employment structure of family members; (ii) rehabilitation programme for the unregistered informal sector workers; (iii) skill profile and training requirement; (iv) advantages owing to the proposed economic activities; and (v) problems in starting new proposed unorganised informal economic activities in Agra, Kanpur and Puri.

#### **I. Employment Structure of Family Members in Unregistered Informal Economic Activities**

As a backdrop of the rehabilitation programme, table VI.1 discusses the employment structure of family members engaged in 97 unregistered informal economic activities in Agra

city. The unregistered informal activities of crucial importance include : (i) shoe manufacturing, (ii) trading of textiles, (iii) general store, (iv) tailoring, (v) auto repairing, (vi) hair dressing, and (vii) hotel, which respectively has employed to 8.93 per cent, 5.66 per cent, 4.14 per cent, 3.87 per cent, 3.45 per cent, 3.18 per cent and to 3.04 per cent of family members of unregistered informal sector workers. The remaining economic activity individually has employed to less than 3 per cent of family members engaged in unregistered informal sector activities. It is, significant to note that, out of 97 unregistered informal economic activities, shoe manufacturing is the largest employment generating, while 21 economic activities (scissors making, cosmetic, electric shop, auto painting, paper distributing, chick making, cable operating, horse mail making, lock repairing, raw leather trading, carpet making, cooker repairing, metal casting, wood basket making, kite making, oil mill, cobblers, pickle manufacturing, taunga repairing, timber work and stove repairing) as lowest employment generating and that each activity has employed to only 0.14 per cent of family members, of the workers employed in unregistered informal sector activities (table VI.1).

**Table VI.1 : Distribution of Employment of Family Members in Unregistered Informal Economic Activities in Agra City : 1999**

Sl.No.	Present economic activity	No.	Percentage
1.	Spice making	2	0.28
2.	Trading of textiles	41	5.66
3.	Hotel	22	3.04
4.	Shoe manufacturing	65	8.93
5.	Auto repairing	25	3.45
6.	Driving	8	1.10
7.	Dairy	11	1.52
8.	Plastic shop, rubber, fibre	19	2.62
9.	Kharad work	15	2.07
10.	Soap manufacturing and trading	11	1.52
11.	Tea preparation	11	1.52
12.	Metal shop	10	1.38
13.	Chemical shop	8	1.10
14.	General store	30	4.14
15.	Agricultural labour	14	1.93

Table VI 1 (contd...)

Sl.No.	Present economic activity	No.	Percentage
16.	Metal product	14	1.93
17.	Tabala making	4	0.55
18.	Bakery	19	2.62
19.	Wholesale trading in electric equipment	11	1.52
20.	Switching machine repairing	6	0.83
21.	Tobacco selling	7	0.97
22.	Private service	10	1.38
23.	Petha making	5	0.69
24.	Shoes box making	3	0.41
25.	Scissor making	1	0.14
26.	Cosmetic selling	1	0.14
27.	Shoe trading	6	0.83
28.	Tuition	2	0.28
29.	Carpentry	13	1.80
30.	Electric shop	1	0.14
31.	Property dealing	13	1.80
32.	Laundry work	11	1.52
33.	Household servant	5	0.69
34.	Hair dressing	23	3.18
35.	Photography	3	0.41
36.	Tailoring	28	3.87
37.	Bag making	4	0.55
38.	Medicine preparing	4	0.55
39.	Printing	15	2.07
40.	Confectioneries	10	1.38
41.	Auto parts trading	5	0.69
42.	Car repairing	2	0.28
43.	Auto painting	1	0.14
44.	Paper distributing	1	0.14
45.	Tyre re trading	6	0.83
46.	Chick making	1	0.14
47.	Motor binding	2	0.28
48.	Cable operating	1	0.14
49.	Horse nail making	1	0.14
50.	Lock repairing	1	0.14
51.	Electric item repairing	20	2.76
52.	Inlay work	10	1.38
53.	Warehousing	15	2.07
54.	Repairing and servicing of cycles	2	0.28
55.	Ghee selling	5	0.69
56.	Electric wire manufacturing	3	0.41
57.	Unemployed persons and students	7	0.97
58.	Shoe making	3	0.41
59.	Bangle selling	4	0.55

Table VI.1 (contd...)

Sl.No.	Present economic activity	No.	Percentage
60.	Agriculture equipment selling	5	0.69
61.	Embroidery, zari work	2	0.28
62.	Black-smithy	10	1.38
63.	Electronic repairing	8	1.10
64.	Raw leather trading	1	0.14
65.	Selling of medicine	2	0.28
66.	Carpet making	1	0.14
67.	Binding work	6	0.83
68.	Tanga driving	2	0.28
69.	Soda making	2	0.28
70.	Welding	13	1.80
71.	Cooker repairing	1	0.14
72.	Transport and travel agency	5	0.69
73.	Metal casting	1	0.14
74.	Wood basket making	1	0.14
75.	Rickshaw pulling	2	0.28
76.	Kite making	1	0.14
77.	Metal chain making	2	0.28
78.	Motor workshop	5	0.69
79.	Pottery	7	0.97
80.	Cycle repairing	7	0.97
81.	Bhad Ghunja	2	0.28
82.	Stationery selling	4	0.55
83.	Green grocery	4	0.55
84.	Wood craft making	3	0.41
85.	Cement pot making	6	0.83
86.	Coat making	2	0.28
87.	Oil mill	1	0.14
88.	Juice selling	2	0.28
89.	Leather bag making	2	0.28
90.	Cobbler	1	0.14
91.	Band mastering	2	0.28
92.	Pickle making	1	0.14
93.	Tanga repairing	1	0.14
94.	Brush making	4	0.55
95.	Decoration work	2	0.28
96.	Timber work	1	0.14
97.	Stove repairing	1	0.14
	Total	724	100.00

Source : Based on the information collected from 500 workers in Agra city.

Table VI.2 discusses the employment structure of family members engaged in 88 unregistered informal economic activities in Kanpur city. The major employment intensive economic activities include : (i) electric repairing and manufacturing, (ii) selling of textiles, (iii) general store, (iv) shoe making, (v) tailoring, (vi) hair dressing, (vii) hotel, (viii) plastic works, (ix) tobacco trading, and (x) electronics repairing, which individually has accounted for over 3 per cent of employment, of unregistered informal sector. In sharp contrast to above, 23 economic activities (optical work, motor workshop, batasha making, engine and generator repairing, photo and frame making, flour mill, light decorating, crockery selling, photostat, metal chain selling, kite making, cloth mill, chip making, mobile oil selling, chapati making, pickle making and selling, gas repairing, pullies selling, ice-cream selling, selling of medicines, kulfi-making, cycle trading and embroidery work) are found to be the least employment generating activities, which individually has employed to only 0.18 per cent of family members of the unregistered informal segment (table VI.2).

Table VI.2 : Distribution of Employment of Family Members in Unregistered Informal Economic Activities in Kanpur City : 1999

Sl.No.	Present economic activity	No.	Percentage
1.	Tea stall	13	2.39
2.	Selling of textiles	33	6.06
3.	Binding	3	0.55
4.	Shoe trading	9	1.66
5.	Plastic works	18	3.30
6.	Soap manufacturing and trading	5	0.92
7.	Steel furniture making	14	2.57
8.	Watch repairing and selling	7	1.28
9.	Electronics repairing	17	3.12
10.	Battery shop	3	0.55
11.	Cycle repairing	12	2.20
12.	General store	23	4.22
13.	Ghee selling	2	0.37
14.	Optical work	1	0.18
15.	Hotel	18	3.30
16.	Green grocery	6	1.10
17.	Property dealing	6	1.10



Table VI.2(contd...)

Sl.No.	Present economic activity	No.	Percentage
18.	Tailoring	21	3.85
19.	Hair dressing	19	3.49
20.	Namkeen selling	3	0.55
21.	Stationery selling	9	1.65
22.	Shoe making	20	3.67
23.	Tuition work	5	0.92
24.	Eggs selling	2	0.37
25.	Black-smithy	4	0.73
26.	Sewing machine repairing	4	0.73
27.	Carpentry	7	1.28
28.	Domestic service	2	0.37
29.	Dairy work	3	0.55
30.	Electric repairing and manufacturing	41	7.63
31.	Tobacco trading	17	3.12
32.	Warehousing	12	2.20
33.	Travel and transportation work	7	1.28
34.	Juice selling	5	0.92
35.	Printing and screen printing work	9	1.65
36.	Leather trading	9	1.65
37.	Chemical works	6	1.10
38.	Plumber work	4	0.73
39.	Kharad work	5	0.92
40.	Auto repairing	7	1.28
41.	Private service	6	1.10
42.	Bakery	14	2.57
43.	Timber and plywood works	3	0.55
44.	PCO	5	0.92
45.	Unemployed persons	10	1.83
46.	Oil mill	4	0.73
47.	Motor repairing work	1	0.18
48.	Spices making	3	0.55
49.	Welding work	11	2.02
50.	Batasha making	1	0.18
51.	Engine and generator repairing	1	0.18
52.	Cattle food selling	2	0.37
53.	Photography work	6	1.10
54.	Driving work	3	0.55
55.	Metal product selling	9	1.65
56.	Bag making and selling	4	0.73
57.	Photo and frame making	1	0.18
58.	Confectionery	4	0.73
59.	Gift items and cosmetic selling	2	0.37
60.	Chemical equipment selling	1	0.18
61.	Glass selling	1	0.18



Table VI.2(contd...)

Sl.No.	Present economic activity	No.	Percentage
62.	Agricultural labour	5	0.92
63.	Cotton shop and machine work	4	0.73
64.	Fast food making	1	0.18
65.	Flour mill	1	0.18
66.	Rafoo work	3	0.55
67.	Pottery work	2	0.37
68.	Light decorating work	1	0.18
69.	Crockery work	1	0.18
70.	Photostat work	1	0.18
71.	Laundry	2	0.37
72.	Metal chain selling	1	0.18
73.	Broom making	2	0.37
74.	Kite making	1	0.18
75.	Cloth mill	1	0.18
76.	Chip making	1	0.18
77.	Mobile oil selling	1	0.18
78.	Chappati making	1	0.18
79.	Pickle making and selling	1	0.18
80.	Gas repairing work	1	0.18
81.	Auto parts selling	3	0.55
82.	Pullies selling	1	0.18
83.	Ice cream selling	1	0.18
84.	Gold-smithy	2	0.37
85.	Selling of medicines	1	0.18
86.	Kulfi making	1	0.18
87.	Cycle trading	1	0.18
88.	Embroidery work	1	0.18
	Total	545	100.00

Source : Based on the information collected from 500 workers in Kanpur city.

Table VI.3 presents the employment structure of family members employed in 72 unregistered informal sector activities in Puri. It is found that fishing is the single important economic activity, which has employed to over 39 per cent of family members, of the unregistered informal segment. Other economic activities are, however, found to be relatively less important as each activity individually has employed to less than 4.50 per cent of family members, of the unregistered informal segment (table VI.3).

Table VI.3 : Distribution of Employment of Family Members in Unregistered Informal Economic Activities in Puri City : 1999

Sl.No.	Present economic activity	No.	Percentage
1.	Fruit selling	4	0.73
2.	Tea stall	11	2.00
3.	Textile trading	11	2.00
4.	Metal pot selling	2	0.36
5.	Rickshaw pulling	18	3.27
6.	Auto repairing	9	1.65
7.	Unemployed persons	14	2.58
8.	Pan selling	16	2.91
9.	Idol selling	1	0.18
10.	Tailoring	15	2.73
11.	Rickshaw and cycle parts sales and services	9	1.64
12.	Labour work	23	4.18
13.	Fish selling	17	3.09
14.	Stationery shop	1	0.18
15.	Tall patra making and selling	2	0.36
16.	General stores	14	2.55
17.	Book selling and namkeen selling	9	1.64
18.	Hotel	14	2.55
19.	Tuition work	2	0.36
20.	Fishing	215	39.12
21.	Sea guard work	22	4.01
22.	Electric repairs and sales	1	0.18
23.	Dry fish selling	3	0.55
24.	Bangle selling	5	0.91
25.	Cell item selling	8	1.45
26.	Auto driving work	12	2.18
27.	Plastic toys and products selling	3	0.55
28.	Chemist work	1	0.18
29.	Watch repairing and sales	2	0.36
30.	Hand pump repairing	2	0.36
31.	Green grocery work	7	1.27
32.	Namkeen shop	2	0.36
33.	Hair dressing	5	0.91
34.	Chandua making	2	0.36
35.	Cloth bag making	2	0.36
36.	Photo frame making	2	0.36
37.	Idol making	8	1.45
38.	Cosmetic selling	2	0.36
39.	PCO	2	0.36
40.	Photographic work	7	1.27
41.	Jhalmuri selling	3	0.55
42.	Rangoli work	1	0.18

Table VI.3 (contd....)

Sl.No.	Present economic activity	No.	Percentage
43.	Teaching work	2	0.36
44.	Poultry farm work	1	0.18
45.	Fibre glass making	1	0.18
46.	Bucket making	1	0.18
47.	Carpentry	2	0.36
48.	Flour mill	1	0.18
49.	Confectionery	1	0.18
50.	Electronic repairing	2	0.36
51.	Massioning work	2	0.36
52.	Pop corn selling	1	0.18
53.	Tyre retrading	1	0.18
54.	Battery work	1	0.18
55.	Laundry work	1	0.18
56.	Househld servant	1	0.18
57.	Kite making	1	0.18
58.	Panda	3	0.55
59.	Gardening work	1	0.18
60.	Meat selling	2	0.36
61.	Handicraft selling	2	0.36
62.	Stove repairing	1	0.18
63.	Selling of petrol	1	0.18
64.	Eggs selling	1	0.18
65.	Welding work	2	0.36
66.	Motor binding	1	0.18
67.	Agarbatti making	1	0.18
68.	Rice selling	3	0.55
69.	Breakfast selling	1	0.18
70.	Pooja pot selling	1	0.18
71.	Dry fruit selling	1	0.18
72.	Painting work	1	0.18
Total		550	100.00

Source : Based on the information collected from 500 workers in Puri city.

## II. Tentative Rehabilitation Programme for Informal Sector Workers

It may be recapitulated that workers engaged in unregistered informal sector are low-income generators and, therefore, it would be worthwhile to launch a suitable rehabilitation programme for their socio-economic upliftment. Such a programme needs to be discriminatory, selective, remunerative and employment generating specific. Thus, it requires the examination

of employment structure in ongoing, while, capital, manpower, infrastructure and training requirements in the proposed economic activities. However, the consideration of above aspects per-se depends on the level of satisfaction/dissatisfaction among the informal sector workers.

In the light of above consideration, table VI.4 classifies the informal sector workers by reasons of dissatisfaction. For the sake of analytical convenience, informal sector workers are classified into : (i) artisans, (ii) skilled workers, (iii) self-employed, and (iv) other types of workers, while reasons of dissatisfaction into 11 categories, such as, (i) irregular earnings, (ii) exploitation by middlemen, (iii) low wages, (iv) no future prospects, (v) declining demand in

Table VI.4 : **Classification of Unregistered Informal Sector Workers by Skill Profile and Reasons of Dissatisfaction in Agra City : 1999**

Reasons of dissatisfaction	Artisans	Skilled workers	Self-employed workers	Other types of workers
Irregular earnings	2 (7.69)	58 (21.64)	44 (40.74)	11 (8.80)
Exploitation by middlemen	--	--	--	--
Low wages	16 (61.54)	160 (59.70)	27 (25.00)	78 (62.40)
No future prospects	--	--	--	--
Low demand and inefficient marketing	--	14 (5.22)	11 (10.19)	19 (15.20)
Shortage of working capital	--	--	--	3 (2.40)
Non-availability of local raw materials	--	--	--	--
High price of raw material	3 (11.54)	1 (0.37)	--	--
Low profit margin	4 (15.38)	35 (13.07)	26 (24.07)	7 (5.60)
Non-cooperative attitude of financial institutions/banks	--	--	--	--
Others	1 (3.85)	--	--	7 (5.60)
Total	26 (100.00)	268 (100.00)	108 (100.00)	125 (100.00)

Source : Based on the information collected from family members of workers in Agra city, and, therefore, it may not necessarily add to 500.

the market/problem in marketing, (vi) financial constraints in arranging working capital, (vii) non-availability of local raw materials, (viii) high price of raw materials, (ix) low margin of profit, (x) non-cooperative attitude of financial institutions/banks, and (xi) others. Table VI.4 gives a summary view on above important aspects for unregistered informal workers in Agra city.

Artisans, skilled workers and other types of workers in unregistered informal segment are dissatisfied due mainly to low wages, while self-employed owing to the irregular earnings. Table VI.5 similarly provides the reasons for dissatisfaction in relation to unregistered informal sector workers in Kanpur city. More or less, a similar pattern emerges. A majority of artisans, skilled workers and other type of workers are found dissatisfied mainly due to the low wages, while self-employed to the irregular earnings (table VI.5).

Table VI.5 : Classification of Unregistered Informal Sector Workers by Skill Profile and Reasons of Dissatisfaction in Kanpur City : 1999

Reasons of dissatisfaction	Artisans	Skilled workers	Self-employed workers	Other types of workers
Irregular earnings	2 (28.57)	43 (37.39)	22 (40.00)	14 (11.67)
Exploitation by middlemen	--	--	--	--
Low wages	4 (57.14)	51 (44.35)	9 (16.36)	87 (72.50)
No future prospects	--	6 (5.22)	10 (18.18)	15 (12.50)
Low demand and inefficient marketing	--	--	--	--
Shortage of working capital	--	--	--	--
Non-availability of local raw materials	--	--	--	--
High price of raw material	--	--	--	1 (0.83)
Low profit margin	1 (14.29)	13 (11.30)	14 (25.46)	3 (2.50)
Non-cooperative attitude of financial institutions/banks	--	--	--	--
Others	--	2 (1.74)	--	--
Total	7 (100.00)	115 (100.00)	55 (100.00)	120 (100.00)

Source : Based on the information collected from family members of workers in Kanpur city, and, therefore, it may not necessarily add to 500.

In Puri city, a majority of artisans and other type of informal sector workers has been found dissatisfied mainly due to low wages, while those of skilled workers and self-employed to the irregular earnings (table VI.6). The above empirical analysis thus underlines the low wages and irregular earnings for unregistered informal sector workers as major causal factors for the dissatisfaction in selected cities. Born out from the above, it may be possible that the dissatisfaction among such workers may be mitigated by adopting appropriate rehabilitation programme through expansion, restructuring, streamlining and fresh establishment of industrial units/establishments. It requires a careful identification of remunerative and employment intensive economic activities, which are presently carried out and those, which are being proposed to be started by the unregistered informal sector workers backed by financial and skill requirement.

Table VI.6 : Classification of Unregistered Informal Sector Workers by Skill Profile and Reasons of Dissatisfaction in Puri City : 1999

Reasons of dissatisfaction	Artisans	Skilled workers	Self-employed workers	Other types of workers
Irregular earnings	--	104 (63.41)	61 (67.03)	61 (26.29)
Exploitation by middlemen	--	--	--	--
Low wages	5 (83.33)	34 (20.73)	4 (4.40)	117 (50.43)
No future prospects	1 (16.67)	25 (15.24)	15 (16.48)	50 (21.55)
Low demand and inefficient marketing	--	--	--	--
Shortage of working capital	--	--	--	--
Non-availability of local raw materials	--	--	--	--
High price of raw material	--	--	--	--
Low profit margin	--	1 (0.62)	11 (12.09)	4 (1.73)
Non-cooperative attitude of financial institutions/banks	--	--	--	--
Others	--	--	--	--
Total	6 (100.00)	164 (100.00)	91 (100.00)	232 (100.00)

Source : Based on the information collected from family members of workers in Puri city, and, therefore, it may not necessarily add to 500.



Table VI.7 records 63 presently carried out economic activities along with workers per unit, proposed economic activities, requirement of per worker fixed capital, working capital, total productive capital and workers per unit in Agra city. We find that, out of 63 on-going economic activities, there are 16 economic activities with a relatively higher employment generating potential of 3 or to more persons per unit in the unregistered informal segment. Such activities are : (i) shoe selling, (ii) auto repairing, (iii) soap manufacturing, (iv) petha making, (v) tailoring, (vi) photography, (vii) teaching, (viii) bag making, (ix) inlay work, (x) embroidery, (xi) shoe making, (xii) wood craft making, (xiii) coat stitching, (xiv) drumming, (xv) brush making, and (xvi) tube-light selling. Each economic activity has generally employed to 3 or more workers per unit.

Unregistered informal workers in activities per-se have expressed their willingness to start the activity on the similar direction. For instance, shoe sellers wish to be involved in shoe trading with per worker investment of Rs.42,916.67 of fixed capital, Rs.30,000 of working capital and to Rs.72,916.67 of total productive capital. It would also require the employment of 5 workers per unit. Similarly, auto repairers wish to start auto repair shop with per worker investment of Rs.27,619.04 of fixed capital, Rs.42,058.82 of working capital and to Rs.69,677.86 of total productive capital by employing 3 workers per unit. Similarly, unregistered informal workers engaged in soap manufacturing have expressed their willingness to start soap trading and manufacturing with the help of per worker investment of Rs.9,091.91 of fixed capital, Rs.9,090.91 of working capital, Rs.18,182.82 of total productive capital with the help of 6 workers per unit. Unregistered informal sector workers in such economic activities like petha making, tailoring, photography, teaching, bag making, etc. have desired in the similar direction. It is interesting to note that within the 16 employment intensive economic activities, the requirement of per worker total productive capital is found

Table VI.7 : Workers Per Unit in Present and Per Worker Requirement of Capital and Employment per Unit in Proposed Unregistered Informal Economic Activities in Agra City : 1999

Present economic activity	Workers per unit	Proposed economic activity	Workers per unit	Per worker fixed capital (Rs.)	Per worker working capital (Rs.)	Per worker total productive capital (Rs.)
Tea stall	1	General stores	2	33354.43	23797.47	57151.90
Cooking work	1	Hotel and restaurants	5	15111.11	7666.67	22777.78
Confectionery	1	Confectionery	4	11200.00	6600.00	17800.00
Cloth selling	1	Trading of textiles	3	33934.43	20081.96	54016.39
Shoes fitting	1	Shoes manufacturing	6	16420.12	7248.52	23668.64
Shoe sales	3	Shoe trading	5	42916.67	30000.00	72916.67
Shoe box making	2	Shoe box making	5	12250.00	4000.00	16250.00
Auto parts repairing	2	Auto parts repairing	3	30000.00	12058.82	42058.82
Auto repairing	3	Auto repairing	3	27619.04	42058.82	69677.86
Auto driving	1	Auto driving	1	119444.44	3888.88	123333.32
Dairy work	2	Dairy work	2	40769.23	13846.15	54615.38
Selling of misc. products at shop	2	Rubber, plastic and fibre selling	3	31111.11	20000.00	51111.11
Kharad work	2	Kharad work	4	24642.86	8214.29	32857.15
Bakery	2	Bakery making	4	16911.76	7205.88	24117.64
Soap manufacturing	4	Soap trading & manufacturing	6	9091.91	9090.91	18181.82
Petha making	5	Petha making work	7	83333.33	33333.33	116666.67
Hair dressing	2	Hair dressing	3	16290.32	10000.00	26290.32
Tailoring	3	Tailoring	5	13376.62	5389.61	18766.23
Metal furniture making	2	Metal product	4	14750.00	9625.00	24375.00
Selling of metal products	1	Metal pot selling	2	37500.00	17500.00	55000.00
Tabala making	2	Tabala making	4	12500.00	5000.00	17500.00
Electric product selling & repairing	1	Electric repairing and trading	2	28035.57	10535.71	38571.28
Electronic products selling	2	Electronic products selling	3	30000.00	10400.00	40400.00
Press work	2	Printing press	5	21481.48	7407.41	28888.89
Sewing machine repairing	2	Sewing machine repairing	4	13636.36	7272.73	20909.09
Photography work	3	Photography work	4	50000.00	16666.67	66666.67
Computer service work	2	Private service	5	29629.63	9629.63	39259.26
Teaching	3	Tuition or coaching centre	5	10000.00	4000.00	14000.00
Bag making	3	Bag making	5	12000.00	8000.00	20000.00
Cosmetic trading	2	Cosmetic trading	3	10000.00	25000.00	35000.00
Denting and painting	1	Motor car service centre	5	18000.00	12000.00	30000.00
Carpentry	2	Carpentry	3	14166.67	13333.33	27500.00
Inlay work	3	Inlay work	5	8814.81	5444.44	14259.25
Laundry work	2	Laundry work	3	24166.67	6250.00	30416.67
Betel selling	1	Intoxicant work	2	30000.00	20000.00	50000.00
Helping at shop	1	Cycle repairing work	2	50000.00	25000.00	75000.00
Welding work	2	Welding work	4	16851.86	12592.59	29444.45
Warehousing work	2	Warehousing	3	50000.00	20000.00	70000.00
Embroidery	3	Embroidery	4	25000.00	7500.00	32500.00
Taj manufacturing	1	Taj trading	2	50000.00	25000.00	75000.00
Chick making	2	Chick making	4	15000.00	10000.00	25000.00
Cycle repairing	2	Cycle repairing	2	25000.00	10000.00	35000.00

Table VI.7 (contd....)

Present economic activity	Workers per unit	Proposed economic activity	Workers per unit	Per worker fixed capital (Rs.)	Per worker working capital (Rs.)	Per worker total productive capital (Rs.)
Dust disposing work	2	Disposal work	3	16666.67	333.33	20000.00
Shoe making	4	Oil mill	5	66666.67	1666.67	68333.34
Soda making	2	Soda making	4	10000.00	5000.00	15000.00
Cycle repairing	2	Cycle repairing	3	10000.00	6666.67	16666.67
Bhadbhonja work	1	Bhadbhonja work	2	5000.00	20000.00	25000.00
Wood craft making	3	Wood craft making	4	12500.00	8750.00	21250.00
Tea stalls	2	Tea stalls	3	12000.00	6000.00	18000.00
Stove repairing	2	Stove repairing	4	25000.00	15000.00	40000.00
Cement pot making	1	Cement pot making & selling	2	12500.00	12500.00	25000.00
Coat stitching	3	Coat stitching work	4	12500.00	7500.00	20000.00
Juice making and selling	1	Juice selling	3	1666.67	10000.00	11666.67
Stationery trading work	2	Stationery trading work	3	40000.00	10000.00	50000.00
Black smithy	2	Black smithy	3	10000.00	25000.00	35000.00
Tailoring	2	Binding	3	8333.33	3333.33	11666.67
Chemical work	2	Chemical shop	3	33333.33	33333.33	66666.66
Carpentry	2	Trading of daily needs products	3	40000.00	10000.00	50000.00
Band and drum work	7	Band and drum work	9	12500.00	1250.00	13750.00
Cycle repairing	2	Flour mill	3	20000.00	13333.33	33333.33
Brush making	3	Brush making	4	12500.00	7500.00	20000.00
Tubelight selling	3	Decoration work	5	16666.67	7777.78	24444.45
Chhillai work	2	Chhillai work	3	18125.00	4375.00	22500.00
Overall	2		4	24805.76	11884.89	36690.65

Source : Based on the information collected from 500 informal sector workers in Agra city.

largest in petha making being Rs.1,16,666.67, while smallest in juice selling activity being to Rs.11,666.67 per worker. It may further be noted that in Agra, the average requirement of fixed capital comes to Rs.24,805.76, working capital to Rs.11,884.89 and total productive capital to Rs.36,690.65 per worker to start a unregistered informal sector unit/establishment. It would imply that under the rehabilitation programme there needs to be a provision of Rs.36,690.65 per worker and 3 persons per unit to start a unit/establishment with a view to enhance the earnings of those who are wishing to be engaged in the unregistered informal sector segment. Such a rehabilitation programme is required to be selective and

discriminatory, which may stress upon the employment intensive-cum-capital saving economic activities, such as, juice selling, chhapai work, brush making, stitching work, wood craft making, soda making, embroidery work, welding work, metal product, tabala making, printing press, teaching, bag making, inlay work, hotel and restaurant, confectionery, shoe manufacturing, shoe box making, soap trading and the tailoring in the city economy.

Table VI.8 portrays the workers per unit in ongoing economic activities and the requirement of workers per unit, per worker fixed capital, working capital and total productive capital in proposed unregistered informal economic activities in Kanpur. It is found that, out of 52 ongoing unregistered informal economic activities, 13 economic activities, such as, (i) printing press, (ii) shoe fitting, (iii) dairying, (iv) steel furniture making, (v) travel agency, (vi) hardware, (vii) leather manufacturing, (viii) engine repairing, (ix) spice packing, (x) soap manufacturing, (xi) oil mill, (xii) photo frame making, and (xiii) bag making are more employment intensive activities employing to 3 or more persons per unit. The unregistered informal sector workers engaged in corresponding activities have expressed their willingness to be involved in (i) printing press, (ii) shoe factory, (iii) dairy, (iv) metal products manufacturing, (v) travel agency, (vi) hardware, (vii) leather manufacturing, (viii) motor service workshop, (ix) spice selling, (x) soap manufacturing and trading, (xi) oil mill, (xii) photo studio, and (xiii) bag making, as owner of the unit/establishment. It seems that there is movement from worker to owner almost in the same type of unregistered informal activity.

The requirement of per worker fixed capital comes to Rs.28,000, working capital Rs.9,666.67 and the total productive capital to Rs.37,666.67 to start a printing press; per worker fixed capital of Rs.16,538.45, working capital of Rs.8,653.85 and to total productive capital of Rs.25,192.31 to start a shoe factory; per worker fixed capital of Rs.16,666.67, working capital of Rs.8,333.33 and to total productive capital of Rs.25,000 to start a dairy

Table VI.8 : Workers Per Unit in Present and Per Worker Requirement of Capital and Employment per Unit in Proposed Unregistered Informal Economic Activities in Kanpur City : 1999

Present economic activity	Workers per unit	Proposed economic activity	Workers per unit	Per worker fixed capital (Rs.)	Per worker working capital (Rs.)	Per worker total productive capital (Rs.)
Selling of cloths	2	Textile manufacturing	3	26388.88	22361.11	48749.99
Press work	3	Printing press	5	28000.00	9666.67	37666.67
Cooking	2	Hotel and restaurant	3	18275.86	9741.38	28017.24
Shoe fitting	3	Shoe factory	5	16538.46	8653.85	25192.31
Private teaching (tutor)	1	Tuition work	5	10000.00	7000.00	17000.00
Selling of plastic products	2	Rubber & Plastic product mfg.	3	20208.00	13125.00	33333.00
Selling of shoes	2	Shoe trading	3	16666.67	30000.00	46666.67
Watch repairing	2	Watch repairing	3	50000.00	50000.00	100000.00
Computer servicing	2	Private service	3	22083.33	12916.67	35000.00
Electronic selling	2	Electronic sales & servicing	2	28857.14	20000.00	48857.14
Electric repairing work	1	Electric sales & servicing	2	20232.56	22906.98	43139.54
Tea stall	1	Tea stalls	2	17083.33	15416.67	32455.00
Cycle repairing	2	Cycle repairing	3	17272.73	6363.64	23636.37
Hair cutting work	2	Hair dressing	4	14390.24	6585.37	20975.61
Tailoring	2	Tailoring	3	10595.24	6547.62	17142.86
Black smithy	1	Black smithy	2	18333.33	10000.00	28333.33
Green grocery work	1	Green grocery work	1	30000.00	10000.00	40000.00
General store	2	General store	3	22833.33	32666.67	55500.00
Dairy work	3	Dairy products	4	16666.67	8333.33	25000.00
Milkman	2	Ghee selling	3	36666.67	33333.33	70000.00
Steel furniture making	3	Metal products manufacturing	4	18947.37	18947.37	37894.74
Leather selling	2	Raw leather manufacturing	4	28571.43	10000.00	38571.43
Sewing machine repairing	2	Sewing machine repairing	3	50000.00	16666.67	60666.67
Welding work	2	Welding work	3	20000.00	15000.00	35000.00
Chemical work	2	Chemical manufacturing	5	34545.45	29090.91	63636.36
Travel agency	3	Travel agency	4	23333.33	18333.33	41666.67
Juice making and selling	2	Juice making and selling	3	15000.00	9166.67	24166.67
Hardware	3	Hardware selling	4	25000.00	15000.00	40000.00
Pan masala packing work	2	Pan masala packing work	3	16666.67	5000.00	21666.67
Kharad work	2	Kharad work	4	26666.67	9047.62	35714.29
Auto repairing work	2	Auto repairing work	4	24444.44	13888.89	38333.33
Leather manufacturing	4	Leather products manufacturing	6	16000.00	14000.00	30000.00
Bakery	2	Bakery	4	15080.00	10000.00	25080.00
Stationery selling	2	Stationery selling	4	23095.24	26190.48	49285.72
Engine repairing	3	Motor servicing	5	33333.33	13333.33	46666.67
Photography work	2	Photography studio	4	32500.00	11250.00	43750.00
Spice packing work	3	Spice selling	5	25000.00	7500.00	32500.00



Table VI.8 (contd....)

Present economic activity	Workers per unit	Proposed economic activity	Workers per unit	Per worker fixed capital (Rs.)	Per worker working capital (Rs.)	Per worker total productive capital (Rs.)
Soap manufacturing	3	Soap manufacturing & trading	6	6250.00	37500.00	43750.00
Pan selling	1	Intoxicant manufacturing	4	17142.86	5714.29	22857.15
Oil mill	5	Oil mill	8	22400.00	14000.00	36400.00
Photo frame making	3	Photo studio	6	5000.00	7500.00	12500.00
Namkeen selling	2	Namkeen manufacturing	6	10000.00	6666.67	16666.67
Bag making	3	Bag making	6	3333.33	10000.00	13333.33
Cotton selling	2	Cotton selling	4	20000.00	25000.00	45000.00
Pottery work	2	Pottery	4	7500.00	10000.00	17500.00
Light decorating	2	Light decorating work	4	25000.00	12500.00	37500.00
Laundry work	2	Dry cleaning	3	16666.67	6666.67	23333.34
Chick making	2	Chick making	3	13333.33	3333.33	16666.67
Carpentry	2	Carpentry work	4	17142.86	17142.86	34285.72
Plywood making work	2	Timber work	4	60000.00	40000.00	100000.00
PCO	1	PCO	2	42857.14	10000.00	52857.14
Auto driving	1	Auto driving work	1	100000.00	5000.00	105000.00
Overall	2		4	22550.00	15420.00	37970.00

Source : Based on the information collected from 500 informal sector workers in Kanpur city.

product unit; and per worker fixed capital of Rs.18,947.37, working capital of Rs.18,947.37 and the total productive capital of Rs.37,894.74 to start a metal manufacturing unit. Similarly, per worker requirement of fixed capital comes to Rs.23,333.33, working capital to Rs.18,333.33 and the total productive capital to Rs.41,666.67 to start a travel agency; the per worker requirement of fixed capital comes to Rs.25,000, working capital to Rs.15,000 and total productive capital to Rs.40,000 to start a hardware establishment; and to per worker fixed capital of Rs.16,000, working capital of Rs.14,000 and to total productive capital of Rs.30,000 to start a leather manufacturing unit.

Similarly, per worker fixed capital of Rs.33,333.33, working capital of Rs.13,333.33 and the total productive capital of Rs.46,666.67 are required to start a motor service workshop; per worker fixed capital of Rs.25,000, working capital of Rs.7,500.00 and the total productive



capital of Rs.32,500 are required to start spice selling; and to per worker fixed capital of Rs.6,250, working capital of Rs.37,500 and to total productive capital of Rs.43,750 are required to start a soap manufacturing and selling. Additionally, per worker fixed capital of Rs.22,400, working capital of Rs.14,000 and to total productive capital of Rs.36,400 are required to start a oil mill; per worker fixed capital of Rs.5,000, working capital of Rs.7,500 and to total productive capital of Rs.12,500 are required to start a photo studio; and to per worker fixed capital of Rs.3,333.33, working capital of Rs.10,000 and to total productive capital of Rs.13,333.33 are required to start a bag making unregistered informal economic activity. The requirement of workers in above economic activities comes to 3 or more persons per unit.

Interestingly, the per person requirement of fixed capital to start an unregistered informal sector unit/establishment in the Kanpur city comes to Rs.22,550, working capital to Rs.15,420 and to total productive capital to Rs.37,970. Further, the requirement of total productive capital per worker for starting a new unit/establishment is the largest in case of self-employed auto driving activity (Rs.1,05,000), while lowest (Rs.12,500) in photo studio among the 52 unregistered informal activities.

It may recapitulated that the requirement of total productive capital to start a new unit/establishment is Rs.37,970 on an average. Thus, rehabilitation programme needs to provide minimum of Rs.37,970 to start a fresh unit/establishment so as to enhance the earning of those who are willing to start a fresh unit/establishment. However, such a programme must be concerned with productive employment generating potential following the capital saving technology. Based on these, we find that : (i) teaching, (ii) dairy products, (iii) leather manufacturing, (iv) bakery, (v) pan shop, (vi) photo studios, (vii) namkeen making, (viii) bag making, and (ix) pot making are the major unregistered economic activities, each requiring

upto per person total productive capital of Rs.30,000 and is able to generate employment of 3 or more persons per unit.

Table VI.9 gives the information on employment per unit in existing unregistered economic activities, while per worker fixed capital, working capital, productive capital and employment per unit in the proposed unregistered informal economic activities in Puri city. It is discovered that, out of 48 existing unregistered economic activities, 18 activities, i.e. (i) fishing, (ii) auto repairing, (iii) tea stall, (iv) cycle and rickshaw repairing, (v) cycle trading, (vi) agarbatti manufacturing, (vi) fish catching, (vii) fibre-glass business, (viii) hand-pump selling, (ix) fish trading, (x) bag making, (xi) rangoli work, (xii) photography, (xiii) lubricant selling, (xiv) cell item selling, (xv) flour mill, (xvi) poultry work, (xvii) handicraft selling, and (xviii) drying of fish are found employing 3 or more persons per unit.

Workers employed in fishing have proposed to start the net trading with the help of per person fixed capital of Rs.22,500, working capital of Rs.7,500 and to total productive capital of Rs.30,000 along with 8 workers per unit; auto repairing workers have desired to start auto repairing shop requiring per person fixed capital of Rs.16,000, working capital of Rs.3,000 and total productive capital of Rs.19,000 with the help of 6 workers; and workers engaged in tea making have desired to start the general store requiring per person fixed capital of Rs.28,797.47, working capital of Rs.19,202.53 and to total productive capital of Rs.48,000 with the help of 4 workers.

Similarly, workers employed in cycle and rickshaw repairing have desired to start rickshaw and cycle repairing and selling with the help of per worker fixed capital of Rs.11,785.71, working capital of Rs.8,357.14 and to total productive capital of Rs.20,142.85 with the help of 6 workers; workers employed in trading of cycle have felt to be involved in

rickshaw and cycle repairing with the help of per worker fixed capital of Rs.20,000, working capital of Rs.5,000 and to total productive capital of Rs.25,000 by employing 5 workers; and workers employed in agarbatti manufacturing have desired to start agarbatti selling with the help of per worker fixed capital of Rs.5,714.29, working capital of Rs.1,428.57 and to total productive capital of Rs.7,142.86 with the help of 7 workers per unit.

Fish catching workers have desired to start the miscellaneous product shop for boat and net trading requiring per worker fixed capital of Rs.20,000, working capital of Rs.50,000 and to total productive capital of Rs.70,000 with the help of 6 workers; workers employed in fibre glass trading have desired to start the fibre glass manufacturing with the help of per person fixed capital of Rs.14,285.71, working capital of Rs.1,428.57 and to total productive capital of Rs.15,714.28 with the help of 7 workers; and workers employed in hand pump selling wish to start hand pump sales service requiring per person fixed capital of Rs.20,000, working capital of Rs.10,000 and to total productive capital of Rs.30,000 with the help of 5 workers. The corresponding figures for fish trading workers desiring to start rickshaw garage come to Rs.33,750, Rs.11,250, Rs.45,000 and 6; and, that for workers employed in bag making wishing to start bag making establishment independently come to Rs.7,105.26, Rs.2,894.74, Rs.10,000 and 7.

Similarly, workers employed in rangoli work desired to start the rangoli shop with the help of per person fixed capital of Rs.20,000, working capital of Rs.10,000 and to total productive capital of Rs.30,000 with the help of 4 workers; workers in photography desired to start the photographic studios with the help of Rs.42,857.14 of fixed capital, Rs.11,428.57 of working capital and to Rs.54,285.71 of total productive capital by employing 6 persons per unit; workers in lubricant selling wished to start the lubricant shop with the help of Rs.75,000 of fixed capital, Rs.7,500 of working capital and to Rs.82,500 of total productive capital by

employing 6 workers; workers employed in flour mill proposed to start flour mill with the help of Rs.50,000 of fixed capital, Rs.5,000 of working capital and to Rs.55,000 of total productive capital with the help of 6 workers. Similarly, workers employed in pottery work desired to start pottery farm with the help of per person fixed capital of Rs.40,000, working capital of Rs.10,000 and to total productive capital of Rs.50,000 by employing 8 workers; workers in handicraft selling were found desirous to start handicraft manufacturing and selling with the help of Rs.33,333.33 of fixed capital, Rs.3,333.33 of working capital and to Rs.36,666.66 of total productive capital with the help of 5 workers; and workers in fish drying proposed to start fish selling with the help of Rs.17,706.04 of fixed capital, Rs.4,719.78 of working capital and to Rs.22,425.82 of total productive capital by employing 7 workers per unit.

**Table VI.9 : Workers Per Unit in Present and Per Worker Requirement of Capital and Employment per Unit in Proposed Unregistered Informal Economic Activities in Puri City : 1999**

Present economic activity	Workers per unit	Proposed economic activity	Workers per unit	Per worker fixed capital (Rs.)	Per worker working capital (Rs.)	Per worker total productive capital (Rs.)
Fish selling	2	Fish trading	4	17111.11	9333.33	26444.44
Fishing work	5	Net trading	8	22500.00	7500.00	30000.00
Cooking	2	Restaurant and hotel	4	16444.44	7888.89	24333.33
Cloth selling	2	Cloth manufacturing	4	19545.45	20000.00	39545.45
Metal pot selling	2	Metal pot manufacturing	4	60000.00	20000.00	80000.00
Sea guarding work	1	Umbrella and tube selling	3	25000.00	15000.00	40000.00
Auto repairing	4	Auto repairing work	6	16000.00	3000.00	19000.00
Pan selling	1	Pan selling	2	19250.00	10250.00	29500.00
Tea stall	3	General store	4	28797.47	19202.53	48000.00
Tailoring work	2	Tailoring	5	7424.24	3636.36	11060.60
Cycle & rickshaw repairing	3	Rickshaw & cycle repairing and selling	6	11785.71	8357.14	20142.85
Stationery selling	2	Stationery trading	4	34285.71	22857.14	57142.85
Cycle trading	3	Rickshaw & cycle repairing	5	20000.00	5000.00	25000.00
Welding work	2	Welding work	6	8333.33	5000.00	13333.33
Kharad work	2	Kharad work	4	25000.00	5000.00	30000.00
Agarbatti manufacturing	4	Agarbatti selling	7	5714.29	1428.57	7142.86
Fishing and sea guarding	1	Motor boat garage	4	32500.00	5000.00	37500.00
Sea guarding work	1	Information bureau	5	10000.00	10000.00	20000.00
Fish catching	4	Mfg. of misc. products for boat and net	6	20000.00	50000.00	70000.00
Private teaching (tutor)	1	Coaching centre	5	10000.00	23333.33	33333.33
Fibre glass business	3	Fibre glass manufacturing	7	14285.71	1428.57	15714.28

Table VI.9 (contd....)

Present economic activity	Workers per unit	Proposed economic activity	Workers per unit	Per worker fixed capital (Rs.)	Per worker working capital (Rs.)	Per worker total productive capital (Rs.)
Medicine trading	2	Electronic product selling	4	25000.00	5000.00	30000.00
Namkeen selling	2	Namkeen trading	4	33333.33	6666.67	40000.00
Bangle selling	1	Bangle trading	2	13333.33	23333.33	36666.56
Tea stall	2	Tea stall	3	13750.00	8750.00	22500.00
Handpump selling	3	Handpump sales & service work	5	20000.00	10000.00	30000.00
Green grocery work	1	Green grocery work	2	25000.00	2500.00	27500.00
Fish trading	4	Rickshaw garage	6	33750.00	11250.00	45000.00
Idol making	2	Idol manufacturing	7	23076.92	5384.62	28461.54
Dry fish selling	1	Dry fish trading	3	20750.00	11000.00	31750.00
Driving	1	Auto driving	1	121764.71	9352.94	131117.65
PCO	1	PCO, fax, xerox work	2	116666.67	38333.33	155000.00
Bag making	3	Bag making	7	7105.26	2894.74	10000.00
Tyre re trading	2	Tyre re trading	4	25000.00	25000.00	50000.00
Cosmetic selling	2	Cosmetics	3	50000.00	6666.67	56666.67
Rangoli work	3	Rangoli shop	4	20000.00	10000.00	30000.00
Photography work	3	Photography studio	6	42857.14	11428.57	54285.71
Lubricant selling	3	Lubricant shop	6	75000.00	7500.00	82500.00
Cell item selling	3	Cell item selling	2	27500.00	6500.00	34000.00
Carpentry	2	Carpentry	5	10000.00	10000.00	20000.00
Flour mill	3	Flour mill	6	50000.00	5000.00	55000.00
Electronic repairing and selling	2	Electronic	4	15000.00	35000.00	50000.00
Poultry work	5	Poultry farm	8	40000.00	10000.00	50000.00
Meat selling	2	Meat shop	4	20000.00	6000.00	26000.00
Handicraft selling	3	Handicraft manufacturing & selling	5	33333.33	3333.33	36666.66
Drying of fish	5	Fish selling	7	17706.04	4719.78	22425.82
Overall	2		5	26620.00	10660.00	37280.00

Source : Based on the information collected from 500 informal sector workers in Puri city.

So as to start an unregistered informal sector unit/establishment, the per worker requirement of fixed capital comes to Rs.26,620.00, working capital to Rs.10,660 and to total productive capital to Rs.37,280.00, in the Puri city. Thus, there needs to be a provision of minimum of Rs.37,280 for starting a unit and this has to be taken care of by the rehabilitation programme for the upliftment of unregistered informal sector workers. However, such a programme needs to be highly selective, discriminatory and remunerative for selecting such units/establishments. Based on productive employment generating and capital saving criteria,

the rehabilitation programme may consider starting of such units/establishments as : (i) net trading, (ii) auto repair shop, (iii) tailoring, (iv) rickshaw and cycle repairing, (v) welding, (vi) agarbatti selling, (vii) information centre at beach, (viii) fibre glass manufacturing, (ix) hand-pump sales and service, (x) idol manufacturing, (xi) bag making, (xii) carpentry, and (xiii) fish selling unregistered informal sector activities. Each activity requires the per person total productive capital upto Rs.30,000, which proposes to generate the employment upto 5 persons per unit/establishment (table VI.9).

### **III. Skill Profile and Training Requirement**

The activities proposed to be started also require specific skills and duration of training. In view of this, the attempt is made to examine the levels of workers' skills and duration of training for artisans, skilled workers, self-employed workers and the other type of workers.

The above aspect would help in initiating the establishment of a unit/establishment with a view to enhance the earnings of workers engaged in unregistered informal sector activities. Table VI.10 classifies the family members of unregistered informal sector workers into : (i) artisans, (ii) skilled workers, (iii) self-employed, and (iv) others in Agra, Kanpur and Puri cities. In Agra, of the total male workers, 51.76 per cent are skilled workers, while within the total female workers, 47.06 per cent are other type of workers. A similar type of finding also emerges in Kanpur and Puri cities, where 41.16 per cent and 53.85 per cent of male workers are found skilled workers. Similarly, within the female workers, 90 per cent in Kanpur and to 71.81 per cent in Puri have been found as other type of workers. The self-employed male workers come to 20.98 per cent in Agra, 19.49 per cent in Kanpur and to 17.58 per cent in Puri. Similarly, within the male workers, artisans come to 4.31 per cent in Agra, 2.53 per cent in Kanpur and to 1.47 per cent in Puri. Within the female workers, artisan



comes to 23.53 per cent in Agra and to 0.91 per cent in Puri; skilled workers to 23.53 per cent in Agra, 5 per cent in Kanpur and to 7.73 per cent in Puri; and those of self-employed workers to 5.88 per cent in Agra, 5 per cent in Kanpur and to 19.55 per cent in Puri.

Of the total family members of unregistered informal sector, a majority of them has been found as skilled workers (50.86 per cent) in Agra; while other types of workers (40.40 per cent) in Kanpur and in Puri city (47.05 per cent). Of the total workers (male and female) in all cities (Agra, Kanpur and Puri), a majority of family members is found as skilled workers accounting for 41.53 pr cent of total workers. The above empirical analysis, therefore, underlines that family members have generally been employed as skilled workers in cities under reference (table VI.10).

**Table VI.10 : Distribution of Family Members by Sex and Skill Profile in Selected Cities : 1999**

Persons engaged	Artisans (%)	Skilled workers (%)	Self-employed (%)	Others (%)	Total (%)
<b>A. <u>Agra</u></b>					
Male	4.31	51.76	20.98	22.95	100.00
Female	23.53	23.53	5.88	47.06	100.00
<b>Sub-Total</b>	<b>4.93</b>	<b>50.86</b>	<b>20.49</b>	<b>23.72</b>	<b>100.00</b>
<b>B. <u>Kanpur</u></b>					
Male	2.53	41.16	19.49	36.82	100.00
Female	--	5.00	5.00	90.00	100.00
<b>Sub-Total</b>	<b>2.36</b>	<b>38.72</b>	<b>18.52</b>	<b>40.40</b>	<b>100.00</b>
<b>C. <u>Puri</u></b>					
Male	1.47	53.85	17.58	27.10	100.00
Female	0.91	7.73	19.55	71.81	100.00
<b>Sub-Total</b>	<b>1.22</b>	<b>33.27</b>	<b>18.46</b>	<b>47.05</b>	<b>100.00</b>
<b>Grand-Total</b>	<b>2.96</b>	<b>41.53</b>	<b>19.29</b>	<b>36.22</b>	<b>100.00</b>

Source : Based on the information of workers collected from each selected cities.

Table VI.11 records the duration and source of training received by (i) artisans, (ii) skilled workers, (iii) self-employed, and (iv) others. It is found that in Agra city, all types of workers (artisans, skilled workers, self-employed and others) have received training from the small units/establishments. The duration of such training has been found to be 1.56 years in case of artisans, 1.45 years of skilled workers, 0.96 year for self-employed and to 0.85 year for other types of workers. The average duration of training in the Agra for all types of workers comes to 1.21 years. Similarly, in Kanpur city, all types of workers have reported to have taken training from small units/establishments. The duration of training varies from a minimum of 0.76 year in each cases of self-employed and other types of workers to a maximum of 1.29 years in case of skilled workers. The artisans have received the training of 1.07 years. On an average, workers have received training to 0.97 year in the Kanpur city so as work in the unregistered informal sector as a whole. In Puri city, all workers employed in the informal sector have received training from small units/establishments. The duration of training varies from a maximum of 1.17 years in case of artisans to a minimum of 0.04 year for self-employed workers. The skilled workers have received training for 0.96 year, while other types of workers to 0.17 year. In the Puri city, the average year of training for all workers comes to 0.42 year (table VI.11).

Considering all cities together, it has been discovered that all workers have received training from small units/establishments. The duration of training has been found to be maximum in case of artisans (1.41 years), while minimum in case of other types of workers (0.50 year). Training received by skilled workers and self-employed comes to 0.62 and to 0.59 year respectively. The training received from small units/establishments in all cities together has been recorded to be 0.86 year. This suggests that less than one year of training is all that is required to work in the unregistered informal sector unit/establishment (table VI.11).

Table VI.11 : Source and Duration of Training Received by Unregistered Informal Sector Workers in Selected Cities : 1999

Type of workers	Agra		Kanpur		Puri		Total	
	Source of training and duration		Source of training and duration		Source of training and duration		Source of training and duration	
	Training received from	Duration	Training received from	Duration	Training received from	Duration	Training received from	Duration
	Small units (%) of workers	Per worker (year)	Small units (%) of workers	Per worker (year)	Small units (%) of workers	Per worker (year)	Small units (%) of workers	Per worker (year)
Artisans	4.93	1.56	2.36	1.07	1.22	1.17	2.96	1.41
Skilled workers	50.85	1.45	38.72	1.29	33.27	0.96	41.53	0.62
Self-employed	20.49	0.96	18.52	0.76	18.46	0.04	19.29	0.69
Others	23.73	0.85	40.40	0.76	47.05	0.17	36.22	0.50
<b>Total</b>	<b>100.00</b>	<b>1.21</b>	<b>100.00</b>	<b>0.97</b>	<b>100.00</b>	<b>0.42</b>	<b>100.00</b>	<b>0.86</b>

Source : Based on the information collected from 500 unregistered informal sector workers from each selected cities.

#### IV. Advantages Arising out of Proposed Unregistered Informal Economic Activities

We may now examine the advantages likely to be incurred out of proposed economic activities likely to be undertaken by the unregistered informal sector workers. It has been examined in terms of : (i) possibility of employment/job work generation, (ii) efficiency in marketing of products/services, and (iii) improvement in earnings. This has been recorded in table VI.12 for Agra city. It is revealed that generally persons likely to be involved in 60 unregistered informal economic activities would likely to be advantageous in terms of employment/job work generation. This has been realized by unregistered informal sector

workers in 58, out of 60, informal economic activities. As far marketing of products/services, out of 60 economic activities, persons to be engaged in 35 economic informal activities felt advantageous in terms of marketing of products/services. With regard to enhancement of earnings, persons willing to be involved in all 60 unregistered informal activities felt the improvement in their earnings (table VI.12).

Table VI.12 : **Advantages due to Proposed Unorganized Informal Economic Activities in Agra City : 1999**

Proposed economic activity	Responses of workers about employment/job work generation (%)			Responses of workers about marketing of products or services (%)			Responses of workers about enhancement in earnings (%)		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
General stores	44.00	56.00	100.00	98.00	2.00	100.00	100.00	--	100.00
Hotel and restaurants	100.00	--	100.00	5.26	94.74	100.00	100.00	--	100.00
Confectionery	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Trading of textiles	91.67	8.33	100.00	95.83	4.17	100.00	100.00	--	100.00
Shoes manufacturing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Shoe trading	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Shoe box making	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Auto parts repairing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Auto repairing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Auto driving	12.50	87.50	100.00	--	100.00	100.00	100.00	--	100.00
Dairy work	83.33	16.67	100.00	100.00	--	100.00	100.00	--	100.00
Rubber, plastic and fibre selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Kharad work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Bakery making	87.50	12.50	100.00	100.00	--	100.00	100.00	--	100.00
Soap trading & manufacturing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Petha making work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Hair dressing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Tailoring	94.44	5.56	100.00	94.44	5.56	100.00	100.00	--	100.00
Metal product	100.00	--	100.00	88.89	11.11	100.00	100.00	--	100.00
Metal pot selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Tabala making	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Electric repairing and trading	100.00	--	100.00	69.23	30.77	100.00	100.00	--	100.00
Electronic products selling	100.00	--	100.00	87.50	12.50	100.00	100.00	--	100.00
Printing press	100.00	--	100.00	58.33	41.67	100.00	100.00	--	100.00
Sewing machine repairing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Photography work	100.00	--	100.00	66.67	33.33	100.00	100.00	--	100.00
Private service	100.00	--	100.00	83.33	16.67	100.00	100.00	--	100.00
Tuition or coaching centre	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Bag making	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Cosmetic trading	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Motor car service centre	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00
Carpentry	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00

Table VI.12 (contd....)

Proposed economic activity	Responses of workers about employment/job work generation (%)			Responses of workers about marketing of products or services (%)			Responses of workers about enhancement in earnings (%)		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Inlay work	100.00	--	100.00	16.67	83.33	100.00	100.00	--	100.00
Laundry work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Intoxicant work	50.00	50.00	100.00	--	100.00	100.00	100.00	--	100.00
Cycle repairing work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Welding work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Warehousing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Embroidery	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Taj trading	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Chick making	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Cycle repairing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Oil mill	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Soda making	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Cycle repairing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Bhadbhonja work	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Wood craft making	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00
Tea stalls	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Stove repairing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Cement pot making & selling	100.00	--	100.00	66.67	33.33	100.00	100.00	--	100.00
Coat stitching work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Juice selling	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Stationery trading work	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Black smithy	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Binding	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Chemical shop	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Trading of daily needs products	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Band and drum work	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Flour mill	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Brush making	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00
Decoration work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Chhillai work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Total	87.57	12.43	100.00	61.86	38.14	100.00	100.00	--	100.00

Source : Based on the information collected from 500 unregistered informal sector workers in Agra city.

Table VI.13 records the advantages likely to be incurred out of proposed economic activities in Kanpur city. We find that, out of 51 economic activities, excepting 7 activities (black-smithy, green grocery, general stores, ghee selling, intoxicants, pan shop and auto driving), in 44 economic activities persons wishing to be engaged feel to be advantageous in



terms of employment/job work generation. As far advantages likely to be incurred in terms of marketing of products/services, we find that excepting 17 economic activities (printing press, private services, electric sales and service, hair dresses, tailoring, black-smithy, raw leather, welding, kharad work, leather products manufacturing, bakery, photography, oil mill, PCO, light decoration, dry-cleaner and auto driving), persons willing to be involved in 34 economic activities have felt to be advantageous in terms of marketing of products/services. As far earnings, persons desirous to be involved in all 51 economic activities have felt the improvement in their earnings accruable in Kanpur city.

Table VI.13 : Advantages due to Proposed Unorganized Informal Economic Activities in Kanpur City : 1999

Proposed economic activity	Responses of workers about employment/job work generation (%)			Responses of workers about marketing of products or services (%)			Responses of workers about enhancement in earnings (%)		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Textile manufacturing	72.22	27.78	100.00	77.78	22.22	100.00	100.00	--	100.00
Printing press	100.00	--	100.00	33.33	66.67	100.00	100.00	--	100.00
Hotel and restaurant	94.74	5.27	100.00	68.42	31.58	100.00	100.00	--	100.00
Shoe factory	100.00	--	100.00	90.00	10.00	100.00	100.00	--	100.00
Tuition work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Rubber & Plastic product mfg.	75.00	25.00	100.00	87.50	12.50	100.00	100.00	--	100.00
Shoe trading	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Watch repairing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Private service	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00
Electronic sales & servicing	81.25	18.25	100.00	56.25	43.75	100.00	100.00	--	100.00
Electric sales & servicing	90.48	9.52	100.00	42.86	57.14	100.00	100.00	--	100.00
Tea stalls	100.00	--	100.00	83.33	16.67	100.00	100.00	--	100.00
Cycle repairing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Hair dressing	100.00	--	100.00	9.10	90.90	100.00	100.00	--	100.00
Tailoring	100.00	--	100.00	30.77	69.23	100.00	100.00	--	100.00
Black smithy	50.00	50.00	100.00	50.00	50.00	100.00	100.00	--	100.00
Green grocery work	--	100.00	100.00	100.00	--	100.00	100.00	--	100.00
General store	20.83	79.17	100.00	60.41	39.59	100.00	100.00	--	100.00
Dairy products	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Ghee selling	50.00	50.00	100.00	100.00	--	100.00	100.00	--	100.00
Metal products manufacturing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Raw leather manufacturing	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00
Sewing machine repairing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Welding work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Chemical manufacturing	80.00	20.00	100.00	66.67	33.33	100.00	100.00	--	100.00



Table VI.13 (contd....)

Proposed economic activity	Responses of workers about employment/job work generation (%)			Responses of workers about marketing of products or services (%)			Responses of workers about enhancement in earnings (%)		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Travel agency	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Juice making and selling	66.67	33.33	100.00	100.00	--	100.00	100.00	--	100.00
Hardware selling	100.00	--	100.00	33.33	66.67	100.00	100.00	--	100.00
Pan masala packing work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Kharad work	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00
Auto repairing work	100.00	--	100.00	56.14	43.86	100.00	100.00	--	100.00
Leather products manufacturing	100.00	--	100.00	90.90	9.10	100.00	100.00	--	100.00
Bakery	71.42	28.58	100.00	--	100.00	100.00	100.00	--	100.00
Stationery selling	81.81	18.19	100.00	50.00	50.00	100.00	100.00	--	100.00
Motor servicing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Photography studio	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Spice selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Soap manufacturing & trading	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Intoxicant manufacturing	50.00	50.00	100.00	100.00	--	100.00	100.00	--	100.00
Oil mill	100.00	--	100.00	50.00	50.00	100.00	100.00	--	100.00
Photo studio	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Namkeen manufacturing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Bag making	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Cotton selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Pottery	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Light decorating work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Dry cleaning	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Carpentry work	75.00	25.00	100.00	75.00	25.00	100.00	100.00	--	100.00
Timber work	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
PCO	75.00	25.00	100.00	50.00	50.00	100.00	100.00	--	100.00
Auto driving work	--	100.00	100.00	--	100.00	100.00	100.00	--	100.00
Total	76.92	23.08	100.00	58.39	41.61	100.00	100.00	--	100.00

Source : Based on the information collected from 500 unregistered informal sector workers in Kanpur city.

Table VI.14 portrays the advantages likely to be incurred for persons to be engaged in proposed economic activities in Puri city. It has been revealed that, out of 49 economic activities, excepting 13 economic activities (net trading, pan shop, general stores, stationery, namkeen selling, bangle shop, green grocery, rickshaw garage, auto driving, PCO and Xerox, cosmetics, rangoli shop and building material shop), the persons wishing to be engaged in remaining unregistered informal economic activities have reported to be advantageous in terms

of employment/job work generation. As far marketing of products and services, persons willing to be engaged in various economic activities, except 13 (net trading, pan shop, rickshaw and cycle parts selling, fuel selling, information centre at beach, miscellaneous products for boat and net trading, coaching centre, auto driving, PCO, fax and xeroxing, tyre retrading, cosmetics, photography and studios and fishing activity) have reported to be advantageous in terms of marketing of products and services. Like Agra and Kanpur cities, persons proposing to be involved in all proposed economic activities have reported to be advantageous in terms of enhancement of their earnings in Puri city as well (table VI.14).

Table VI.14 : Advantages due to Proposed Unorganized Informal Economic Activities in Puri City : 1999

Proposed economic activity	Responses of workers about employment/job work generation (%)			Responses of workers about marketing of products or services (%)			Responses of workers about enhancement in earnings (%)		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Fish trading	84.62	15.38	100.00	46.18	53.85	100.00	100.00	--	100.00
Net trading	50.00	50.00	100.00	50.00	50.00	100.00	100.00	--	100.00
Restaurant and hotel	92.86	7.14	100.00	78.57	21.43	100.00	100.00	--	100.00
Cloth manufacturing	54.55	45.45	100.00	63.64	36.36	100.00	100.00	--	100.00
Metal pot manufacturing	--	100.00	100.00	100.00	--	100.00	100.00	--	100.00
Umbrella and tube selling	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Auto repairing work	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Betel selling	18.18	81.82	100.00	45.45	54.55	100.00	100.00	--	100.00
General store	26.67	73.33	100.00	75.00	25.00	100.00	100.00	--	100.00
Tailoring	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Rickshaw & cycle repairing and selling	100.00	--	100.00	33.33	66.67	100.00	100.00	--	100.00
Stationery trading	50.00	50.00	100.00	100.00	--	100.00	100.00	--	100.00
Rickshaw & cycle repairing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Welding work	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Kharad work	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Agarbatti selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Motor boat garage	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Information bureau	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Mfg. of misc. products for boat and net	--	100.00	100.00	--	100.00	100.00	100.00	--	100.00
Coaching centre	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Fibre glass manufacturing	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Electronic product selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Namkeen trading	50.00	50.00	100.00	100.00	--	100.00	100.00	--	100.00
Bangle trading	50.00	50.00	100.00	100.00	--	100.00	100.00	--	100.00
Tea stall	100.00	--	100.00	66.67	33.33	100.00	100.00	--	100.00
Handpump sales & service work	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00

Table VI.14 (contd....)

Proposed economic activity	Responses of workers about employment/job work generation (%)			Responses of workers about marketing of products or services (%)			Responses of workers about enhancement in earnings (%)		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Green grocery work	50.00	50.00	100.00	100.00	--	100.00	100.00	--	100.00
Rickshaw garage	50.00	50.00	100.00	75.00	25.00	100.00	100.00	--	100.00
Idol manufacturing	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Dry fish trading	78.57	21.43	100.00	57.14	42.86	100.00	100.00	--	100.00
Auto driving	5.878	94.12	100.00	--	100.00	100.00	100.00	--	100.00
PCO, fax, xerox work	--	100.00	100.00	50.00	50.00	100.00	100.00	--	100.00
Bag making	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Tyre re trading	100.00	--	100.00	--	100.00	100.00	100.00	--	100.00
Trading of bag and tin	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Cosmetics	50.00	50.00	100.00	--	100.00	100.00	100.00	--	100.00
Rangoli shop	--	100.00	100.00	100.00	--	100.00	100.00	--	100.00
Photography studio	75.00	25.00	100.00	25.00	75.00	100.00	100.00	--	100.00
Lubricant shop	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Cell item selling	80.00	20.00	100.00	100.00	--	100.00	100.00	--	100.00
Carpentry	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Flour mill	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Electronic products selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Poultry farm	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Meat shop	66.67	33.33	100.00	100.00	--	100.00	100.00	--	100.00
Handicraft manufacturing & selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Fish selling	100.00	--	100.00	100.00	--	100.00	100.00	--	100.00
Total	74.55	25.45	100.00	76.88	23.12	100.00	100.00	--	100.00

Source : Based on the information collected from 500 unregistered informal sector workers in Puri city.

#### **V. Problems in Proposed Unregistered Informal Economic Activities and Possibilities of Improvement in Economic Conditions of Unregistered Informal Sector Workers**

We may examine the problems likely to be encountered for workers for starting the new unregistered informal sector units/establishments. This has been summarized in table VI.15 for Agra, Kanpur and Puri cities. In Agra, 72.80 per cent and to 71.80 per cent of workers are of the view that they are likely to face the problems arising on account of shortage of working capital and in arranging infrastructure. Also, 91 per cent, 79 per cent and to 65.60 per cent of workers have reported that they are likely to face the problems on account of non-availability

of local raw materials, inefficient marketing of products and to fierce competition. On the other hand, 76.60 per cent and to 76.20 per cent of workers are of the view that there exists possibility in terms of improvement in their income and availability of skilled workers. It would thus imply that shortage of local raw materials, inefficient marketing and infrastructure bottleneck would likely to be the major bottlenecks for the workers wishing to be engaged in unregistered informal sector in Agra city (table VI.15).

Table VI.15 : Problems Likely to be faced by Unregistered Informal Workers/Owners in Proposed Economic Activities in Agra, Kanpur and Puri Cities

Problems likely to be faced	Responses of workers in Agra			Responses of workers in Kanpur			Responses of workers in Puri			Total		
	Yes (%)	No (%)	Total (%)	Yes (%)	No (%)	Total (%)	Yes (%)	No (%)	Total (%)	Yes (%)	No (%)	Total (%)
Job/work opportunities were non-existent	38.90	61.10	100.00	15.40	84.80	100.00	--	100.00	100.00	24.00	76.00	100.00
Tough competition in the market	65.60	34.40	100.00	90.20	9.80	100.00	--	100.00	100.00	76.50	23.50	100.00
Difficulties in arranging infrastructure	71.80	28.20	100.00	44.20	55.80	100.00	72.40	27.60	100.00	94.20	5.80	100.00
Problems in marketing	79.90	21.00	100.00	97.60	2.40	100.00	--	100.00	100.00	88.34	11.66	100.00
Shortage of working capital	72.80	27.20	100.00	54.20	45.80	100.00	73.60	26.40	100.00	66.87	33.13	100.00
Non-availability of local raw materials	91.00	9.00	100.00	--	100.00	100.00	--	100.00	100.00	91.00	9.00	100.00
Shortage of skilled workers	23.80	76.20	100.00	3.80	96.20	100.00	--	100.00	100.00	14.00	86.00	100.00
No improvement in income	23.40	76.60	100.00	18.60	81.40	100.00	27.40	72.60	100.00	23.13	76.87	100.00

Source : Based on the information collected from 500 unregistered informal sector workers wishing to start new economic activities in each cities of Agra, Kanpur and Puri.

In Kanpur, as much as 97.60 per cent, 90.20 per cent and to 54.20 per cent of workers wishing to be involved in unregistered informal economic activities are likely to face the problems arising on account of inefficient marketing, tough competition and the shortage of

working capital. However, as much as 100 per cent, 96.20 per cent and to 81.40 per cent of unregistered informal sector workers would not likely to face the problems in terms of availability of raw materials, shortage of skilled workers and in enhancement of their income. Thus, inefficient marketing, tough competition and shortage of working capital have generally been recognized, which unregistered informal sector workers are likely to face if they wish to be involved in unregistered informal economic activities in Kanpur city (table VI.15).

In Puri city, the unregistered informal sector workers are likely to face the problems with respect of procurement of working capital and arranging infrastructure if they wish to be engaged in unregistered informal economic activities (table VI.15). In all cities taken together, lack of infrastructure, non-availability of local raw materials, inefficient marketing and shortage of working capital have generally been underlined as critical problems for those workers, who are wishing to be involved in unregistered informal economic activities (table VI.15).

We also examined the possibilities of improvement in economic conditions of the family members of the workers willing to be involved in unregistered informal segment. It has been recorded in table VI.16 for Agra, Kanpur and Puri cities. It is found that in Agra, Kanpur and Puri cities, the family members of workers wishing to be engaged in informal segment are of the view that there exists the possibility of improvement in their economic conditions. As much as 86.59 per cent of family members in Agra, 87.21 per cent in Kanpur and cent per cent in Puri have realized the possibility of improvement in their economic conditions. In all cities together, 91.13 per cent of family members willing to be involved in unregistered informal sector have realized that there exists the possibility of improvement in their economic conditions. It would imply that shift in horizontal or vertical occupation would likely to improve the economic conditions of the members of the family of workers willing to be engaged in unregistered informal segment (table VI.16).



Table VI.16 : Possibilities of Improvement of Economic Conditions of Family Members after Shifting from Old to New Unorganized Informal Activity in Agra, Kanpur and Puri Cities

Cities	Responses of unregistered informal sector workers about the possibilities of improvement in economic condition of their family members			
	Yes (%)	No (%)	Not possible (%)	Total (%)
Agra	86.59	12.73	0.68	100.00
Kanpur	87.21	12.60	0.19	100.00
Puri	100.00	--	--	100.00
Total	91.13	8.57	0.30	100.00

Source : Based on the information of workers of unregistered informal economic activities in Agra, Kanpur and Puri cities.

The overviews of respondents in relation to city life of Agra, Kanpur and Puri cities have also been examined in the present study. It has been examined in terms of : (i) transportation, (ii) water supply, (iii) sanitation, (iv) milk supply, (v) health and medical care, and (vi) housing facility in table VI.17. It is satisfying to note that a majority of respondents in Agra has been found satisfied in terms of transportation (100 per cent), milk supply (100 per cent), health and medical care (100 per cent), housing facility (70.60 per cent), sanitation (65 per cent) and in water supply (51.20 per cent). However, 48.80 per cent, 35 per cent and to 29.40 per cent of respondents have been found dissatisfied with respect of water supply, sanitation and housing facility respectively. It emerges that water supply and sanitation are the problems being faced by the respondents, to some extent, in unregistered informal segment in Agra city (table VI.17).



Table VI.17 : Overviews of Respondents in Relation to City Life of Agra, Kanpur and Puri Cities

Problems likely to be faced	Responses of workers in Agra			Responses of workers in Kanpur			Responses of workers in Puri			Total		
	Satisfactory (%)	Dissatisfactory (%)	Total (%)	Satisfactory (%)	Dissatisfactory (%)	Total (%)	Satisfactory (%)	Dissatisfactory (%)	Total (%)	Satisfactory (%)	Dissatisfactory (%)	Total (%)
Transportation	100.00	-	100.00	100.00	-	100.00	100.00	-	100.00	100.00	-	100.00
Water supply	51.20	48.80	100.00	56.60	43.40	100.00	25.60	74.40	100.00	45.07	54.93	100.00
Sanitation	65.00	35.00	100.00	61.40	38.60	100.00	17.20	82.80	100.00	47.87	52.13	100.00
Milk supply	100.00	-	100.00	100.00	-	100.00	100.00	-	100.00	100.00	-	100.00
Health and medical care	100.00	-	100.00	100.00	-	100.00	100.00	-	100.00	100.00	-	100.00
Housing facility	70.60	29.40	100.00	53.60	46.40	100.00	11.40	88.60	100.00	45.20	54.80	100.00

Source : Based on the information collected from 500 unregistered informal sector workers wishing in each cities of Agra, Kanpur and Puri.

In Kanpur, a majority of respondents has been found satisfied with respect to transportation, milk supply, medical and health care and sanitation. In sharp contrast to above, 43.40 per cent, 38.60 per cent and to 46.40 per cent of respondents are found dissatisfied on account of shortage of water, sanitation and housing. Thus, water supply, sanitation and housing are found to be the problems, to some extent, for the unregistered informal sector workers (table VI.17).

In Puri, a majority of respondents is found satisfied in terms of transportation, milk supply and medical and health care. On the other hand, as much as 88.60 per cent, 82.80 per cent and to 74.40 per cent of respondents have been found dissatisfied with respect of housing facility, sanitation and water supply. Considering all cities together, cent per cent of respondents are found satisfied with respect of transportation, milk supply and health and medical care, whereas, a majority of respondents is found dissatisfied with respect of water

supply (54.93 per cent), housing facility (54.80 per cent) and sanitation (52.13 per cent). The overviews of respondents tend to suggest that water supply, housing and sanitation are the principal problems being faced by the unregistered informal sector workers. Thus, concerted efforts are required to be taken by the government with a view to improve the quality of life of workers engaged in unregistered informal segment.

## VI. Summing Up

Present chapter empirically examines the various aspects of rehabilitation programme for the unregistered informal sector workers. The general finding tends to suggest that, out of 97, there are 7 economic activities in Agra (shoe manufacturing, trading of textiles, general stores, tailoring, auto repairing, hair dressing and hotels) and that each activity has employed over 3 per cent of family members, of the unregistered informal sector workers. In Kanpur, out of 88, there exists 10 economic activities (electric repair and manufacturing, selling of textile, general stores, shoe making, tailoring, hair dressing, hotel, plastic works, tobacco trading and electronic repairing) and that each activity individually has employed over 3 per cent of family members, of unregistered informal sector workers. Similarly, in Puri, out of 72 economic activities, fishing emerges as single important economic activity, which has employed over 39 per cent of family members, of unregistered informal sector workers.

It has also been noted that in Agra, Kanpur and Puri cities, unregistered informal sector workers are generally dissatisfied due mainly to low wages and irregular earnings. Thus, so as to enhance their earnings, an appropriate rehabilitation programme in consonance with productive employment generating and capital saving technology is called for. It is suggested that, under rehabilitation programme, Rs.36,690.65 per worker in the form of total productive

capital with the help of 3 or more workers are required in Agra city to enhance the earnings of unregistered informal sector workers.

Based on productive employment generating potential and capital saving criteria, the unregistered economic activities suggested as a part of rehabilitation programme include : juice selling, chhapai work, brush making, stitching work, wood craft making, soda making, embroidery work, welding work, metal products, tabala making, printing press, teaching, bag making, inlay work, hotel and restaurants, confectionery, shoe manufacturing, shoe box making, soap trading and manufacturing and tailoring.

In Kanpur, to start a unit/establishment needs Rs.37,970 as total productive capital with the help of 3 or more persons per unit. Considering productive employment generating potential and capital saving technology, the various unregistered economic activities (teaching, dairy products, leather manufacturing, bakery, pan shop, photo studio, namkeen making, bag making and pot making) have been suggested to be included under rehabilitation programme so as to enhance the earnings of informal sector workers.

In Puri, to start a unit/establishment requires total productive capital of Rs.37,280 with 5 or more persons per unit. Based on productive employment generating potential and capital saving technology criteria, the various unregistered economic activities (net trading, auto repairing shop, tailoring, rickshaw and cycle repairing, welding, agarbatti selling, information centre at beach, fibre glass manufacturing, hand pump sales and services, idol manufacturing, bag making, carpentry and fish selling) have been suggested to be included under rehabilitation programme for the economic upliftment of unregistered informal sector workers.

It has also been noted that to start a unit/establishment, training is not very important as to only less than one year is required for smooth functioning of the unregistered informal

sector unit/establishment. Also, persons willing to be involved in such a sector feel that generally it would be advantageous to them in terms of employment/job work generation, efficient marketing and raising the level of income. The finding of the study further underlines that lack of infrastructure, local raw material non-availability, inefficient marketing and shortage of working capital are the key problems, which are being faced by the workers in unregistered informal segment.

## CHAPTER VII

### GENERAL SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

We may now recapitulate the major findings of the study and draw some broad conclusions about the contribution by the unregistered informal sector in urban development. This is done with the hope that it will not only sharpen our understanding about the importance and functioning of the unregistered informal sector but also help in exploring certain specific policy measures so as to enhance the socio-economic development of unregistered informal sector workers.

#### I. Defining Informal sector : Some Discussions

Unfortunately research endeavours were such that did not provide a clear analytical basis for delineating the informal from the formal sector in the city economy. The functioning of these two sectors in the urban economy has generally been termed as organized and unorganized, modern and traditional, capitalist and subsistence, protected and unprotected, large and small, regular and casual and formal and informal. These two-way classifications are generally based on the nature of organization, level of technology, marketing of products, protective policy of the government and functioning of the labour market conditions. Since these characteristics are inter-related and inter-dependent, it has never been possible to define these two sectors appropriately. This has led Sethuraman to conclude that "the informal sector is what is not the formal sector."<sup>84</sup>

---

<sup>84</sup> Sethuraman, S.V., Op.cit., 17.

As has been discussed in chapter I, while a considerable attention has been paid to study the registered part of the informal sector, the studies dealing with various activities under the unregistered segment of the informal sector are, however, inadequate. Further, published information on above aspect is not available at all and, therefore, data on such aspects per-se can only be collected by an empirical study designed specifically for this purpose. Such a study will enable a proper analysis of the unregistered segment of the informal sector workers and make suggestions for their socio-economic upliftment. Considering 500 workers as a sample of study in each cities of Agra, Kanpur and Puri, the present study examines the socio-economic conditions of 1500 unregistered informal sector workers, which has been treated as a sound basis for evolving an appropriate rehabilitation programme for their socio-economic development.

## II. Employment and Income Generation

The significance of unregistered informal sector, to a large extent, depends on the magnitude of employment and income generated by this sector in the urban economy. Chapter II, in view of this, examines the employment and income generated by the unregistered informal sector in Agra, Kanpur and Puri cities. Based on the field inquiry, it is discovered that unregistered manufacturing informal segment has employed to 40.93 per cent of total of informal sector workers in all cities. On the other hand, the unregistered non-manufacturing informal segment has employed to 59.07 per cent of total informal sector workers in all cities taken together. The employment generated by unregistered manufacturing informal segment comes to 53 per cent in Agra, 51 per cent in Kanpur and to 18.80 per cent in Puri city. Similarly, employment generated by non-manufacturing segment comes to 47 per cent in Agra, 49 per cent in Kanpur and to 81.20 per cent in Puri city.



As far the income generation by unregistered informal segment, of the total income in all cities, manufacturing segment accounts for 40.57 per cent, while that of non-manufacturing to 59.43 per cent, of the city economy. The income from unregistered manufacturing segment comes to 50.52 per cent in Agra, 47.33 per cent in Kanpur and to 17.51 per cent in Puri city. Similarly, income from non-manufacturing accounts for 49.48 per cent in Agra, 52.67 per cent in Kanpur and to 82.49 per cent in Puri city. Also, average productivity comes to Rs.31,956.00 in all cities taken together, which is higher than that in Puri (Rs.25,435.20), whereas lower than that in Kanpur (Rs.35,607.60) and in Agra city (Rs.34,825.00). Of the city's total income, the income generated by unregistered informal segment accounts for 0.49 per cent in Agra, 0.17 per cent in Kanpur, 0.86 per cent in Puri and to 0.30 per cent in all cities taken together. In terms of value, income generated by unregistered informal sector comes to Rs.174.13 lakhs in Agra, Rs.178.04 lakhs in Kanpur, Rs.127.02 lakhs in Puri and to Rs.479.19 lakhs in all cities taken together.

Also, of the total household income, the income generated by unregistered informal sector accounts for 55.37 per cent in Agra, 63.59 per cent in Kanpur, 63.09 per cent in Puri and to 59.41 per cent in all cities taken together. It, thus, suggests that more than half of the income of household accounted for by the unregistered informal sector. Thus, unregistered segment of the informal sector is critically important with a view to sustain the livelihood of workers engaged in it.

### **III. Social Characteristics of Unregistered Informal sector Workers**

As a backdrop of the present study, the principal social characteristics of unregistered informal sector workers have been empirically examined in Chapter-III. Within the

manufacturing segment in Agra city, a largest number of unregistered informal sector workers (26.79 per cent) has been found within the age group of 26 to 30 years. Such workers are found spread over in such economic activities as paper, printing and allied, leather products, chemicals, basic metals, electrical machinery and other manufacturing. Similarly in Kanpur, within the manufacturing segment, a largest number of unregistered informal sector workers belongs to the age group of 26 to 30 years, which are found engaged in such economic activities as paper printing and allied, chemicals and electrical machinery. In Puri, within the manufacturing segment, a majority of workers (23.40 per cent) is found within the age group of 36-40 years, which are found widely spread over in food and food products and repairs in this holy city.

Within the non-manufacturing segment in Agra city, a largest number of workers (23.40 per cent) is found within the age group of 26-30 years. Such workers are found to be relatively larger in wholesale trade in food and miscellaneous manufactures, wholesale trade in all types of machinery and equipment and in real estate and business services. In Kanpur, largest number of workers (28.57 per cent) is found within the age group of 26-30 years, which are found spread over in wholesale trade in all types of machinery and equipment including transport and electrical equipment, retail trade in fuel and other household utilities and durables, restaurants and hotels and in real estate and business services. In Puri, a largest number of workers (22.66 per cent) is found over 45 years of age, which are confined in services not elsewhere classified and in retail trade in textiles. Considering all economic activities (manufacturing and non-manufacturing), it has been found that a largest number of workers is within the age group of 26-30 years, which clearly reflects the domination of younger generation as a worker in the unregistered informal segment.

The general finding further underscores that within the manufacturing segment 98.11 per cent of workers in Agra, 99.61 per cent in Kanpur and to 87.23 per cent of workers in Puri are male. Within the non-manufacturing segment, 96.60 per cent of workers in Agra, 97.96 per cent in Kanpur and to 89.90 per cent of workers in Puri are found as male workers. In all cities, 97.07 per cent of workers in manufacturing and to 95.20 per cent of workers in non-manufacturing are found as male workers.

Also, a majority of workers in Agra (66.42 per cent), Kanpur (76.47 per cent), Puri (94.68 per cent) and in all cities (74.92 per cent), within the manufacturing segment has been originated from hindu religion. Similarly, 81.28 per cent of workers in Agra, 84.49 per cent in Kanpur, 98.28 per cent in Puri and to 83.80 per cent of workers in all cities within non-manufacturing segment have been found belonging to hindu religion. Further, unregistered manufacturing segment in Agra, is found dominated by workers of other castes (47.55 per cent), which includes Yadavas, Pal, Kayastha and Kushwaha. In Kanpur, a majority of workers is found from SC/ST community. It comes to 40 per cent in the manufacturing segment. SC/ST workers in Puri are found to be 73.41 per cent. The overall finding thus indicates that unregistered manufacturing component of informal sector is the main absorber of SC/ST workers.

Within the non-manufacturing segment, 44.26 per cent of workers are from other caste in Agra, 40.82 per cent of workers are from SC/ST caste in Kanpur, and to 92.36 per cent of workers are from SC/ST caste in Puri. Thus, workers from SC/ST caste are found more significant than the rest of the caste. Considering all cities together and manufacturing and non-manufacturing economic activities, 50.60 per cent of workers are from SC/ST caste, which are engaged in unregistered informal economic activities. The workers from other caste account for 25.33 per cent, Vaishya 9.27 per cent, Kshetriya 7.60 per cent, and that from

Brahmin to 7.20 per cent, of the total manufacturing and non-manufacturing segment. Thus, unregistered segment of informal sector can be characterized as absorber of SC/ST workers.

As far marital status within the manufacturing segment, 68.88 per cent of workers in Agra, 67.45 per cent in Kanpur, 76.59 per cent in Puri and to 69.38 per cent in all cities have been found married. The corresponding figure within non-manufacturing segment comes to 71.06 per cent in Agra, 66.53 per cent in Kanpur, 79.06 per cent in Puri and to 73.48 per cent in all cities. Within the total of manufacturing and non-manufacturing in all cities, as much as 71.80 per cent of unregistered informal sector workers are found married. The general finding, thus, underlines the employment of married workers in the unregistered informal segment of the city economy.

As far the educational background of workers, a majority of manufacturing workers in Agra and Puri is found illiterates, while in Kanpur, a majority of them is found educated upto X<sup>th</sup> standard. Within the non-manufacturing segment, a majority of workers in Agra (23.40 per cent) and in Kanpur (26.94 per cent) is found educated upto X<sup>th</sup> standard, while in Puri a majority of workers (60.84 per cent) is found as illiterates. Considering manufacturing and non-manufacturing activities in all cities, the finding confirms the employment of illiterate workers (29.94 per cent) within the unregistered informal segment of the city economy. It has also been discovered that unregistered manufacturing and non-manufacturing economic activities tend to employ owned workers predominantly. Within manufacturing and non-manufacturing in all cities, study underscores the 66.33 per cent of employment of owned workers, 32.80 per cent of casual workers and to 0.87 per cent of apprentice workers. Thus, the employment of owned workers have generally been found as a main characteristic of unregistered informal sector in selected cities.

#### IV. Working Conditions and Housing Characteristics

An other important dimension of the study is the in-depth empirical examination of working conditions and housing characteristics of workers engaged in unregistered informal sector in selected cities. Such aspects have been examined comprehensively in Chapter-IV, of the present study. The general finding suggests that a majority of unregistered manufacturing informal sector workers has been residing upto 2 kms. of distance from the place of residence to the working place. Such workers are found to be 50.57 per cent in Agra, 67.45 per cent in Kanpur, 87.23 per cent in Puri and to 63.19 per cent in all cities considered together. A similar finding also emerges in case of unregistered non-manufacturing informal sector workers. For instance, 53.62 per cent of workers in Agra, 73.47 per cent in Kanpur, 87.93 per cent in Puri and to 74.83 per cent of workers in all cities have been found living upto 2 kms. of distance from the place of residence to the working place.

Out of unregistered informal sector workers engaged in manufacturing and non-manufacturing economic activities in all cities, it has been revealed that 52 per cent of workers in Agra, 70.40 per cent in Kanpur, 87.80 per cent in Puri and to 70.07 percent of workers in all cities have been residing upto 2 kms. of distance from the place of residence to the working place. Since between the residence and the working place is very short, generally workers use to travel even by foot and thus they have not used any mode of transport. Bicycle has been used as the next mode of transportation after foot for reaching at the working place from the place of residence.

As far the condition of working place within the manufacturing segment, we find that 88.68 per cent of workers in Agra, 91.76 per cent in Kanpur and to 95.74 per cent of workers in Puri feel that there exists adequate water facility in the units/establishments. More or less, a

similar is also the case about the proper ventilation and sufficient place for working. On the other hand, absence of bathroom facility and water drainage have generally been found lacking in the unregistered informal sector units/establishments. A similar type of finding also emerges in case of condition of working place for workers engaged in non-manufacturing establishments. For instance, 89.39 per cent of workers in Agra, 87.35 per cent in Kanpur and to 82.69 per cent in Puri are of the opinion that water facility is adequate in the units/establishments. More or less, a similar finding per-se is also found applicable for ventilation, sufficient place for working, absence of water drainage and water logging problems. However, a majority of unregistered informal sector workers also feels the absence of bathroom facility. Considering both manufacturing and non-manufacturing segments, we find that a majority of workers is found satisfied with respect of water facility, ventilation, working place and the water logging. However, a majority of workers within informal sector is found dissatisfied in respect of bathroom facility and water drainage problems in all selected cities of Agra, Kanpur and Puri.

As far the housing characteristics, a majority of houses in Agra, Kanpur, Puri and in all cities together, has been found pucca and ancestral. As far as the kinds of housing, a majority of houses in Agra, is found as independent tenement. In Kanpur and Puri, a majority of houses is found located in chawl. This is also found true in case of all cities as well. Also, a majority of houses in Agra and Kanpur consists of two rooms, while in Puri one room. In all cities taken together, a majority of houses consists of two rooms. Generally, a majority of houses does not have separate kitchen facility. Also, a majority of households in Agra and Kanpur tends to use flush system, while in Puri open field is used for this purpose. In all cities, flush system has been found in common practice for this particular purpose.



It is also underscored that garbage has generally been disposed off nearby the houses of households in Agra, Kanpur, Puri and in all cities taken together. Water is generally found open/running in Agra, Kanpur, Puri and in all cities. Similarly, electricity has generally been found as main source of lighting by the households. Water tap has been found as a main source of drinking water in Agra, Puri and in all cities, while in Kanpur, handpump owned by the government is found commonly used as the main source of drinking water. Gas in Agra and Kanpur, firewood in Puri and gas in all cities has been found as main fuel for cooking. Also, water facility and electricity have generally been shared by more than one households, while sanitary facility is being used independently by the majority of households in Agra, Kanpur, Puri and in all cities.

#### V. Migration Pattern, Poverty Profile and Consumption Pattern

An important dimension of unregistered informal sector workers is the empirical examination of migration pattern, poverty profile and consumption pattern. Chapter-V is devoted towards the empirical examination of these aspects. We find that 7.20 per cent of workers in Agra, 11.60 per cent in Kanpur, 1.40 per cent in Puri and to 6.73 per cent of unregistered informal sector workers in all cities are migrants. Also, of the total migrants, 55.56 per cent of workers in Agra are from urban areas, while 67.24 per cent in Kanpur and to 100 per cent in Puri are from rural hinterland. Thus, of the total migrant workers, 38.61 per cent of workers are from urban and to 61.39 per cent are from rural areas.

Low income has been found as a main cause for rural-urban migration followed by poor job prospect and family conflict. Before migration, unregistered informal sector workers in Agra were primarily engaged in agriculture and business; in Kanpur they were either engaged in agriculture or unemployed; in Puri, they were mainly either unemployed or studying; and that

in all cities, such workers were either engaged in agriculture or unemployed before migration. The finding of the study also reveals that higher the work experience lower the job changes, which has implied the tied or the bonded nature of job of workers engaged in this segment. Also, a majority of workers migrated in the city with a hope to get the job for their survival, and the source of getting employment has been found to be the relatives/friends. Also, there exists upward movement in terms of monthly per worker wages between the present job and that during pre-migration period, which has been worked out by 3.42 times in all economic activities and cities.

As far poverty profile, 256 households (or 51.20 per cent) in Agra, 275 households (or 55 per cent in Kanpur, 185 households (or 37 per cent) in Puri, and to 718 households (or 47.73 per cent) in all cities have been found living below the poverty line. The poverty is found more intense among slum dwellers, while less severe among chawl and other types of dwellers.

The consumption pattern of unregistered informal sector workers has been examined by applying the Engel's curve. The analysis of MPC in Agra, Kanpur and Puri suggests that MPC for non-food items as a whole is higher than those of food items. The MPC is found largest on other non-food items in Agra and Kanpur being to 0.30 and to 0.25. The analysis of expenditure elasticity shows that excepting few items, all commodities may be treated as essential commodities as expenditure elasticity is found to be less than unity. The behaviour of consumption pattern of workers suggests that as these households emerge from below the subsistence level, they distribute the increase in consumption expenditure between food and non-food items.

## **VI. Rehabilitation Programme for Unregistered Informal Sector Workers**

A tentative rehabilitation programme for socio-economic upliftment of unregistered informal sector workers has been provided in Chapter-VI, of the present study. The general finding emerging out of the study suggests that, out of 97 economic activities in Agra, 7 economic activities are critically important from the view point of employment generation. These include : (i) shoe manufacturing, (ii) trading of textiles, (iii) general stores, (iv) tailoring, (v) auto repairing, (vi) hair dressing, and (vii) hotel. Each economic activity has employed to over 3 per cent of family members of unregistered informal sector workers. Similarly, in Kanpur, out of 88, there exists 10 employment intensive economic activities, such as, (i) electric repairing and manufacturing, (ii) selling of textiles, (iii) general store, (iv) shoe making, (v) tailoring, (vi) hair dressing, (vii) hotel, (viii) plastic works, (ix) tobacco trading, and (x) electronic repairing. Each economic activity has individually employed to over 3 per cent of family members, of unregistered informal sector workers. In Puri, out of 72 economic activities, fishing emerges as single important economic activity, which has employed to over 39 per cent of family members, of unregistered informal sector workers.

The general finding of the study also suggests that informal sector workers are generally found to be dissatisfied mainly due to low or irregular payment of wages and thus, an appropriate rehabilitation programme conducive to employment generating potential and capital saving technology is called for. In view of this, in Agra total productive capital of Rs.36,690.65 per worker is required with the help of 3 or more persons per unit for starting a unit/establishment. As a part of rehabilitation programme for the socio-economic development of unregistered informal sector workers, economic activities suggested include : (i) juice selling, (ii) chhapal work, (iii) brush making, (iv) stitching work, (v) wood craft making, (vi) soda

making, (vii) embroidery work, (viii) welding work, (ix) manufacturing of metal products, (x) tabala making, (xi) printing press, (xii) teaching, (xiii) bag making, (xiv) inlay work, (xv) hotel and restaurants, (xvi) confectionery, (xvii) shoe manufacturing, (xviii) shoe box making, (xix) soap trading, and (xx) tailoring. Each unit/establishment would require the total productive capital upto Rs.36,690.65 per person along with 3 or more persons per unit for the smooth functioning of unit/establishment.

Similarly, in Kanpur, starting a unit/establishment requires total productive capital of Rs.37,970 per person along with 3 persons or more per unit. Based on the productive employment generating potential and capital saving criteria, the various unregistered economic activities suggested include: (i) teaching, (ii) dairy products, (iii) leather manufacturing, (iv) bakery, (v) pan shop, (vi) photo studio, (vii) namkeen making, (viii) bag making, and (ix) pot making for the socio-economic development of unregistered informal sector workers.

In Puri, to start a unit/establishment would require the total productive capital of Rs.37,280 per person along with the 5 persons or more per unit/establishment. Based on the employment generating and capital saving criteria, the various unregistered economic activities suggested include : (i) net trading, (ii) auto repair shop, (iii) tailoring, (iv) rickshaw and cycle repairing, (v) welding, (vi) agarbatti selling, (vii) information centre at beach, (viii) fibre glass manufacturing, (ix) hand pump sale and service, (x) idol manufacturing, (xi) bag making, (xii) carpentry, and (xiii) fish selling.

It is also found that training is not very much important as less than one year of experience is all that is required for the smooth functioning of the unregistered informal sector unit/establishment. It is also discovered that persons wishing to be engaged in unregistered informal sector unit/establishment would likely to be advantageous in terms of employment/job

work generation, marketability of products and above all in enhancement of income. It has, however, been realized that unregistered informal sector unit/establishment is likely to face the problems in terms of lack of infrastructure, non-availability of raw materials, inefficient marketing and the shortage of working capital.

## VII. Policy Implications

Present study is not without policy implication. It may be recapitulated that, of the total city's income, the income generated by unregistered informal sector has been estimated at 0.49 per cent in Agra, 0.17 per cent in Kanpur, 0.86 per cent in Puri and to 0.30 per cent in all cities. Also, income generated by unregistered manufacturing segment comes to 50.52 per cent in Agra, 47.33 per cent in Kanpur and to 17.51 per cent in Puri city. Similarly, income from non-manufacturing comes to 49.48 per cent in Agra, 52.67 per cent in Kanpur and to 82.49 per cent in Puri city. As far employment, the unregistered manufacturing informal sector has generated the employment of 53 per cent in Agra, 51 per cent in Kanpur and to 18.80 per cent in Puri. Similarly, employment generated by unregistered non-manufacturing informal sector comes to 47 per cent in Agra, 49 per cent in Kanpur and to 81.20 per cent in Puri city. Since the per unit/establishment employment generating potential in the non-manufacturing segment is likely to be highly limited on account of meagre use of machinery and equipment, it would, therefore, be useful and rewarding to encourage the manufacturing segment of unregistered informal sector. Thus, problems being faced by the unregistered informal manufacturing units/establishments need to be overcome on priority basis.

The study identifies the lack of infrastructure, non-availability of raw materials, inefficient marketing and shortage of working capital as major constraints for development of unregistered urban informal segment. In the light of above, it would be worthwhile to take

measures urgently so as to overcome problems faced by unregistered informal unit/establishment. The following suggestive measures are required to be undertaken on a priority basis. First, inadequate infrastructure facility has generally hampered the growth of unregistered manufacturing, informal sector unit/establishment. It would be, therefore, advisable that land, building, machinery and equipment required for smooth functioning of the manufacturing informal unit/establishment need to be extended with immediate effect. May be that Government (State as well as Centre) may consider to extend the infrastructural facility such as, land, building, machinery and transportation on discriminatory and concessional basis. Also, quota for land, building, machinery and equipment needs to be earmarked only for those engaged in unregistered manufacturing informal segment. Such facility is suggested to be made available at the affordable rate of interest (say 5 per cent) to the unregistered manufacturing informal sector entrepreneurs/workers for starting their unit/establishment at the place, where unregistered manufacturing informal sector units have already been located and presently it is smoothly functioning. Consequently, it would not create the demand constraint. It is, however, suggested that above facility must only be provided to the manufacturing informal entrepreneurs/workers for running the unit/establishment for productive employment generation. If such facility is found to be misused and tailored towards the maximization of profits, it would be advisable to withdraw such facilities from the unregistered manufacturing informal entrepreneurs/workers.

Second, the untimely and the inadequate raw material availability has been another crucial problem for the smooth operation of unregistered manufacturing informal sector units. Normally, informal entrepreneurs, on account of small scale of operation, tend to purchase raw materials in smaller quantity at the price, which is generally higher than those paid by the formal entrepreneurs. Sometimes, the harassment by the trader is also observed as a general



practice in terms of creating artificially raw material scarcity. To overcome such problems, it may be worthwhile to fix up quota for raw materials for the unregistered manufacturing informal sector unit/establishment. May be that government may establish a corporation, which may ensure the regular supply of raw materials required by the unregistered manufacturing informal sector units/establishments.

Third, shortage of working capital is yet another important problem, which is found as a root cause of technological backwardness and poor infrastructural facility. It seems that working of the existing financial institutions are not suitable to meet the needs of the unregistered manufacturing informal entrepreneurs/workers. Quite often, interest charged from unregistered manufacturing informal entrepreneurs/workers is beyond their paying capacity. It would be advisable that limit for loan should be raised on the one hand, and on the other the rate of interest should be reduced. It is suggested that a separate credit scheme needs to be introduced by the banks to extend the financial support to the unregistered informal entrepreneurs/workers. Government may even think for establishing the Unorganized Informal Sector Development Bank, with a clear purpose to extend the credit support to the informal entrepreneurs/workers at the low rate of interest (say 5 per cent) after the careful examination of paying capacity and feasibility of requirement of the unregistered informal sector loan seekers.

Fourth, as a part of rehabilitation programme, in Agra city, on an average, total productive capital of Rs.36,690.65 per person is required along with 3 persons or more per unit to start a unit/establishment within the unregistered manufacturing informal segment. Similarly, in Kanpur, total productive capital of Rs.37,970 per person is required along with 3 persons or more per unit so as to start the fresh unit/establishment. In Puri also, total productive capital of Rs.37,280 per person along with 5 persons or more per

unit/establishment are required to start a fresh unregistered informal unit/establishment. Based on the total productive capital requirement per person as well as the employment generating potential criteria, various unregistered economic activities have been suggested in 3 cities of Agra, Kanpur and Puri. As a step further, this would likely to help in socio-economic development of unregistered manufacturing informal sector workers/entrepreneurs. It would be advisable that a concerted effort is required to be made by the state and central government to promote the economic activities suggested under the rehabilitation programme for socio-economic development of unregistered informal sector workers/entrepreneurs.

The various promotional policy measures suggested in the study need to be known at the bottom level of the society. May be that such measures are popularized through TV channels, radios and local and non-local newspapers. Also, concerted effort is required to be made by the Non-Government Organizations (NGOs), reliable research organizations and Government Departments for making the promotional measures known to the people by seminars, conferences and meetings at regular intervals. It needs to be emphasized that various promotional measures suggested must concern to the growth of unregistered informal sector in the long run perspective rather than mere survival. If such policy measures are treated as "Stretches" and permanent device of growth of unregistered informal sector units/establishments, it would be desirable that these must be discontinued.

It may be mentioned that policy measures suggested to be adopted are based on the field based information collected from sample of units/establishments in concerned cities. Unfortunately, the exact number of unregistered informal units/establishments is not known, for which a fresh study at the project level is required on census basis. Therefore, the pursuance of policy measures suggested in the study needs to take care of structures and constraints of the present study.

The package of policy measures recommended may likely to overcome the problems arising on account of inadequate infrastructure, shortage of raw materials and financial constraints. Following such policy measures may likely to encourage the development of various unorganized economic activities under the rehabilitation programme suggested for unregistered informal sector workers. This would enable unregistered informal sector to produce the goods of a superior quality, thus, minimising the demand constraint, threat or competition likely to be posed by the formal sector/registered informal sector competitors.

This is, however, not to suggest that development strategy based on the growth of unregistered informal sector in particular and the informal sector as a whole in general would be sufficient for the development of urban economy. In fact, the strategy of the informal sector development independent of organized formal sector development would be self-defeating in itself. Therefore, growth impulse generated by informal sector should be such that must stimulate growth of the formal sector and pari-passu. A strategy, therefore, simultaneously emphasizing the growth of the formal as well as informal sector would be appropriate and inevitable as the growth of the city economy is intrinsically dependent on the growth of these two sectors.

## BIBLIOGRAPHY

- Alagh, Y.K., Bhalla, G.S. and Kashyap, S.P., *Structural Analysis of Gujarat, Punjab and Haryana Economies: An I-O Study*, Allied Publishers, New Delhi, 1980.
- Arora, S.L., Yadav, S.K., Thankachan, T. and Sahay, J., *Data Base for Employment Planning in Informal Sector* (ed. by Ramanujam, M.S., Awasthi, I.C. and Pandey, G.), in *Employment Promotion in the Urban Informal Sector*, New Age International (P) Ltd., 1998.
- Aryee, G.A., "Small Scale Manufacturing Activities : A Study of Inter-Relationship Between the Formal and the Informal Sectors in Kumasi and Ghana", (Geneva, 1977, Mimeographed, *World Employment Programme*, Research Working Paper, Restricted).
- Aziz, A. *Urban Poor and Urban Informal Sector*, Asish Publishing House, New Delhi, 1984.
- Banerji, D., "Measurement of Poverty and Undernutrition", *Economic and Political Weekly*, September 26, 1981.
- Bhalla, G.S., *Structure of Haryana Economy : An Inter-Industrial Flows and Pattern of Final Demand* (Mimeographed), Punjab University, Chandigarh, 1974.
- Bharadwaj, K., "A Note on Structural Inter-Dependence and the Concept of Key Sector", *Kyklos*, 1966.
- Bose, A.N., *The Informal Sector in Calcutta Metropolitan Economy*, ILO, Geneva, 1974.
- Bose, A.N., *Calcutta and Rural Bengal : Small Sector Symbiosis*, Minerva Associates, 1981; and MacEwen Scott, "Who are Self-Employed?"
- Bramley, Ray. "The Urban Informal Sector : Why is it Worth Discussing?", *World Development*, 1978.
- Breman, J., "Labour Relations in the 'Formal and 'Informal' Sectors : Report of a Case Study in South Gujarat, India", *Journal of Peasant Studies*, 1977.
- Brown, A. and Deaton, A., "Models of Consumer Behaviour", *Economic Journal*, 1969.
- Cater, A.P., "International Flow Coefficient sin Dynamic Input-Output Models with Changing Technology", ed. by T. Burna in *Structural Inter-Dependencies and Economic Development*, London, MacMillan and Co. Ltd., 1963.
- Chatterjee, S. and Ray Chaudhuri, A., "Theoretical Approaches on Migration, Unemployment and the Urban Informal Sector : A Critique", *Indian Journal of Labour Economics*, Vol.37, No.3, 1994.
- C.S.O, Statistical Abstract, Ministry of Statistics and Plan Implementation, Government of India, 1999.

- Das, B., "Slum Dwellers in Indian Cities: A Study of Surat", *Man and Development*, Vol.21, No.3, 1999.
- Das, B., "Slums, Migrants and the Urban Informal Sector in Surat City", *Indian Journal of Labour Economics*, Vol.37, No.3, 1994.
- Deshpande, L.K., *The Bombay Labour Market*, Bombay University, 1979.
- Diamond, J., "The Analysis of Structural Constraints in Developing Economies", *Oxford Bulletin of Economics and Statistics*, 1974.
- District Statistical Hand Book, Puri, Directorate of Economics, Orissa, Bhubaneshwar, 1997.
- Duraisamy, P. and Narasimhan, S., "Migration, Remittances and Family Ties in Urban Informal Sector", *Indian Journal of Labour Economics*, Vol.453, No.1, 2000.
- Eckaus, R.S., "The Factor Proportions Problems in Under-developed Areas", *The American Economic Review*, 1955.
- Economics and Statistics Department, Statistical Diary, Kanpur and Agra, State Planning Institute, Lucknow, U.P.
- Emmerij, L., "A New Look at Some Strategies for Increasing Productive Employment in Africa", *International Economic Review*, 1974.
- Fei, JCH and Ranis, G., *Development of Labour Surplus Economy, Theory and Policy*, Homewood III, Richard Erwin, Homewood, Illinois, 1964.
- Fowler, D.A., *The Informal Sector of Free Town (Sierra Leone), Urbanization and Employment Programme*, Geneva, ILO, Working Paper No.26, 1978.
- Fukuchi, T., "A Simulation Analysis of the Urban Informal Sector", *The Developing Economies*, Vol.XXXVI, No.3, 1998.
- Funkhouser, E., "The Urban Informal Sector in Central America : Household Survey Evidence", *World Development*, Vol.24, No.11, 1998.
- Gazetteer of India, Orissa, Puri*, Development of Revenue, Government of Orissa, 1997.
- Geertz., C., *Peddler and Princes, Social Change and Economic Modernization in Two Indonesian Towns*, Chicago and London, Chicago University Press, 1963.
- Gerry, C., *Petty Producers and the Urban Economy : A Case Study of Dakar*, Geneva, ILO, Working Paper No.8, 1974.
- Ghosh, A., *Experiments with Input-Output Models*, Cambridge University Press, 1964.

- Government of India, Planning Commission, *A Technical Note on the Approach to the Fifth Five Year Plan of India*.
- Government of India, Planning Commission, *An Input-Output Tables of the Indian Economy for 1959*, *Artha Vijnana*, September-December, 1967.
- Government of India, Planning Department, Lucknow, *Draft Seventh Five Year Plan*, Vol.I, 1985-86.
- Harris, J.R., "Urban Labour, Urban Poverty and the So-called Informal Sector : A Study of the City of Coimbatore", in *Madras Development Seminar Series*, Vol.10, 1981.
- Harris, J.R. and Todaro, M.P., "Migration, Unemployment and Development : A Two Sector Analysis", *The American Economic Review*, 1970.
- Hart, Keith, "Informal Income Opportunities and Urban Employment in Ghana", *Journal of Modern African Studies*, 1973.
- Hirschman, A.O., *The Strategy of Economic Development*, New Haven : Yale University Press, 1958.
- Hirschman, Charles, "Unemployment Among Urban Youth in Peninsular Malaysia, 1970 : A Multivariate Analysis of Individual and Structural Effects", *Economic Development and Cultural Change*, 1982.
- ILO, *Employment, Income and Equality : A Study for Increasing Productive Employment in Kenya*, Geneva, 1972.
- Jeemol, Unni and Rani, Uma, "Informal Sector : Women in the Emerging Labour Market", *Indian Journal of Labour Economics*, Vol.42, No.4, 1999.
- Joshi, E.B., *Uttar Pradesh Gazetteers, Agra*, Government of Uttar Pradesh, Department of District Gazetteers, U.P., Lucknow, 1965.
- Joshi, H. and Joshi, V., *Surplus Labour and City : A Study of Bombay*, Bombay University, 1976.
- Kashyap, S.P., *Regional Planning in a Consistency Framework : A Study of Gujarat*, Monograph Series 6, Sardar Patel Institute of Economic and Social Research, Ahmedabad, 1979.
- Kashyap, S.P. and Singh, Himat, "Urban Informal Sector : Issues Arising out of Gujarat's Experiences", *Indian Journal of Industrial Relations*, 1987.
- Kashyap, S.P. and Tiwari, R.S., *Shaping of Diamonds in Surat : Some Passes (Facets)*, Sardar Patel Institute of Economic and Social Research, Ahmedabad, Allied Distributors, New Delhi, 1986.
- Kashyap, S.P., Tiwari, R.S. and Veena, D.R., *Facets of an Urban Economy : Economic Base Study of Ahmedabad*, Sardar Patel Institute of Economic and Social Research, Ahmedabad, Manager, Government of India Press, Nasik, 1984.



- King, K., "Kenya's Informal Machine Makers", *World Development*, 1974.
- King, K., "Skill Acquisition in the Informal Sector of African Economy : The Kenya - the Case", in *Employment, Income Distribution and Development*, ed. by F. Stewart, London, Cass, 1975.
- Kulshreshtha, A.C. and Singh, G., "Gross Domestic Product and Employment in the Informal Sector of the Indian Economy", *Indian Journal of Labour Economics*, Vol.42, No.2, 1999.
- Lakdawala, D.T., Alagh, Y.K. and Sharma, A., *Regional Variations in Industrial Development*, Sardar Patel Institute of Economic and Social Research, Ahmedabad, 1974.
- Langdon, S., "Multi-National Corporations, Taste Transfer and Under-Development : A Case Study from Kenya", *Review of African Political Economy*, 1975.
- Leontief, W.W., *The Structure of American Economy*, 1919, 1939.
- Leontief, W.W., *Input-Output Economics*, New York, Oxford University Press, 1966.
- Lewis, W. A., *The Theory of Economic Growth*, London, Allen and Unwin, 1955.
- Lewis, W.A. "Economic Development with Unlimited Supplies of Labour", *Manchester School of Economic and Social Studies*, 1954.
- Leys, C., "The Politics of Redistribution with Growth", *Institute of Development Studies Bulletin*, 1975.
- Lubell, H., *Urban Development and Employment : The Prospects for Calcutta*, ILO, Geneva, 1974.
- Mahadevia, D., Jain, T. and Acharya, B., " Informal Sector and Social Well-Being under Structural Adjustment Programme" *Indian Journal of Labour Economics*, Vol.37, No.3, 1994
- Majumdar, A., *Immigration and Informal Sector*, BISR, Delhi, 1980.
- Majumdar, D., "The Urban Informal Sector", *World Bank Staff Working Paper*, No.211, Washington, 1975.
- Majumdar, D., "Labour Supply is Early Industrialization - The Case Study of Bombay Textile Industry", *Economic History Review*, 1973.
- Manne, A.S. and Rudra, A., "A Consistency Model of India's Fourth Plan", *Sankhya*, 1965.
- Mead, D.C., et.al., "The Informal Sector Elephant", *World Development*, Vol.24, No.10, 1996
- Meher, R., "The Migrant Female Bread Winners : Women in the informal Secondary Sector of Rourkela, Orissa", *Indian Journal of Labour Economica*, Vol.37, No.3, 1994.

- Mehta, B.C., *Structure of Rajasthan Economy*, Research Books, Jaipur, 1983.
- Mehta, Meera, "Urban Informal Sector, Concepts, Indian Evidence and Policy Implications", *Economic and Political Weekly*, 1985.
- Mingione, Enzo, "The Informal Sector and the Development of Third World Cities", *Regional Development Dialogue*, 1984.
- Nihan, G., Demol, E. and Jondoh, E., "The Modern Informal Sector in Noukehou", *International Labour Review*, 1978.
- Nurkse, R., *Problems of Capital Formation in Under Developed Countries*, New York, Oxford University Press, 1953.
- Operation Research Group (ORG), *An Economic Profile of Urban Poor-Slum Dwellers of Madras*, Madras Institute of Development Studies (MIDS), 1980.
- Papola, T.S., *Urban Informal Sector in a Developing Economy*, Vikas Publishing House, New Delhi, 1981.
- Peattie, L.R., "Anthropological Perspectives on the Concepts of Dualism, The Informal Sector and Marginality in Developing Urban Economies", *International Regional Science Review*, 1980.
- Portes, A., "The Informal Sector and World Economy : Notes on the Structure of Subsidized Labour", *Institute of Development Studies Bulletin*, 1978.
- Pyatt, G. and Teffery, R., "Social Accounting Matrices for Development Planning", *Review of Income and Wealth*, 1977.
- Ramadhyani, M., "Industrial and Regional Linkage - Effects of a Public Sector Enterprise : An Empirical Study", *Economic and Political Weekly*, November 24, 1984.
- Ramanujam, M.S. and Awasthi, I.C., "Wage, Working and Living Conditions of Workers in the Informal Sector", *Indian Journal of Labour Economics*, Vol.37, No.3, 1994.
- Rao, V.K.R.V., "Some Nutritional Puzzles : A Note", *Economic and Political Weekly*, July, 1981.
- Rao, V.M. et.al. "Calorie Norm Controversy", *Economic and Political Weekly*, 1982.
- Rasmussen, N.P., *Studies in Inter-Sectoral Relations*, Amsterdam, North Holland Publishing Co., 1956.
- Richardson, H.W. "The Role of Informal Sector : An Overview", *Regional Development Dialogue*, Autumn, 1984.
- Rosenstein, Roden, PNR, "Problems of Industrialization of Eastern and South-Eastern Europe", *The Economic Journal*, 1943.

- Schaefer, K., Sao Paulo : Urban Development and Employment, ILO, Geneva.
- Schmitz, H., "Growth Constraints on Small Scale Manufacturing : Case Studies from Brazil", Sussex : Institute of Development Studies, University of Sussex, 1980.
- Schmitz, H., *Manufacturing in the Backyard : Case Studies of Accumulation and Employment in Small Scale Brazilian Industry*, Totowa, N.J., Allenheld, Osmium, 1982.
- Scitovsky, T., "Growth Balanced or Unbalanced?" in the Allocation of Economic Resources, ed.by, M. Abramovitz, et.al., Santamonica, Stanford University Press, 1957.
- Seturaman, S.V., "The Urban Informal Sector : Concepts, Measurement and Policy", *The International Economic Review*, 1978.
- Sethuraman, S.V., "The Informal Sector in Developing Countries : Some Policy Implications", *Social Action*, 1977.
- Sethuraman, V.V., *Jakarta Urban Development and Employment*, ILO, Geneva, 1976.
- Sethuraman, S.V., "The Urban Informal Sector and Development Policy", in the Urban Informal Sector in Developing Countries : Employment Poverty and Environment, ed.by, S.V. Sethuraman, ILO, Geneva, 1981.
- Shaw, A., "The Informal Sector in Indian Manufacturing Activities : A Regional Study", *Indian Journal of Labour Economics*, Vol.37, No.3, 1994.
- Sohat, R.H., *Economic Development and Urban Migration : Tanzania, 1900-1971*, Oxford Clarendon Press, 1979.
- Srivastava, N. and Bhardwaj, R.R., "Sectoral Interdependence and Identification of Key Sectors in Uttar Pradesh Economy", *Indian Journal of Regional Science*, 1986.
- Srivastava, S.C., Singh, U.S. and Sinha, T.N. Update Input-Output Table of Uttar Pradesh for 1977-78, State Planning Institute, Planning Department, Government of Uttar Pradesh, Jawahar Bhawan, Lucknow, 1981.
- Statistical Bulletin*, Department of Economics and Statistics, State Planning Institute, U.P., Lucknow, 1999.
- Statistical Bulletin*, Kanpur Urban, Department of Economics and Statistics, State Planning Institute, U.P., Lucknow, 1997.
- Sukhatme, P.V., "On Measurement of Poverty", *Economic and Political Weekly*, 1980.
- Tianhong, W., Maruyama, A. and Kilkuchi, M., "Rural-Urban Migration and Labour Markets in China : A Case Study in a North-Eastern Province", *The Developing Economies*, Vol.XXXVIII, No.1, 2000.

- Titanus, G.B., *Input-Output Experiments : The Netherlands, 1948-1961*, Rotterdam, University Press, 1968.
- Tiwari, R.S., "Income and Employment Generation and Productivity Differentials of the Informal vis-à-vis the Formal Sector : A Study of Kanpur Metropolis", *Productivity*. Vol.33, No.1, April-June, 1992.
- Tiwari, R.S. "Migration, Poverty Profile and Consumption Pattern of Informal Sector Workers : An Empirical Analysis", *The Indian Journal of Labour Economics*, Vol.34, No.4, 1991.
- Tiwari, R.S. "Growth and Structure of Informal Sector in an urban Economy : A Study of Kanpur, 1985-86", in *Planning Strategy for a Developing Region*, ed.by A.K. Singh, Print House India, Lucknow, 1990.
- Tiwari, R.S., "Inter-Sectoral Relations in an Urban Economy : A Study of Kanpur in an Input-Output Framework", *Indian Journal of Quantitative Economics*, Vol.VII, No.1, 1991.
- Tiwari, R.S., "Linkages, Labour Exploitation and Productivity in the Urban Informal Sector : A Comparative Study of the Formal and the Informal Sector in Kanpur Metropolis, India", *Indian Journal of Regional Science*, 1998.
- Tiwari, R.S., "Structural Characteristics of Informal vis-à-vis the Formal Sector in an Urban Economy : A Study Kanpur Metropolis", *The Indian Journal of Economics*, Vol. LXXVII, No.306, 1997.
- Tiwari, R.S., "Growth Performance and Industrial Development : A Comparative Study of Uttar Pradesh in Relation to Rest of India and the Indian Economy, 1960-61 to 1985-86", *The Indian Journal of Economics*, Vol. LXXIV, Part-III, No.294, January, 1994.
- Tiwari, R.S., "Performance of the Informal vis-à-vis the Formal Manufacturing Activities : A Study of Kanpur Metropolis", *The Indian Journal of Labour Economics*, Vol.37, No.3, 1994.
- Tiwari, R.S. "Formal-Informal Linkages in the Development of Informal Sector", Paper Presented in the National Seminar on Employment Promotion in the Urban Informal Sector, Organized by Institute of Applied Manpower Research and International Labour Organization, New Delhi, 14-15 December, 1995. Also published in *Employment Promotion in the Urban Informal Sector* (eds.). M.S. Ramanujam, I.C. Awasthi and Gayatri Pandey, New Age International (P) Ltd., Publishers, New Delhi, 1998 and in *Manpower Journal*, 1998.
- Tiwari, R.S., *Role of Informal Sector in Urban Communities*, Himalaya Publishing House, Bombay, 1997.
- Todaro, M.P., "A Model of Labour Migration and Urban Unemployment in Less Developed Countries", *The American Economic Review*, 1969.
- T.T.K. Pharma Ltd., *A Road Guide to Kanpur*, Printing Division, Chennai.

Venkatramaiah, P., Kulkarni, A.R. and Argade, L., "Input-Output Tables for India, 1963", *Artha Vijnana*, 1972.

Weeks, John, "Policies for Expanding Employment in the Urban Informal Sector of Developing Economics", *International Economic Review*, 1975.